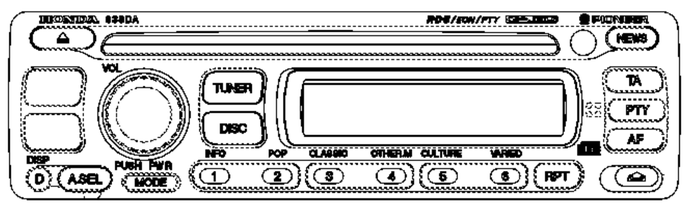
Service Manual

PIONEER®
The Art of Entertainment
HONDA

DEH-M7026ZH/EW



ORDER NO.
CRT2078

MULTI-CD CONTROL CD PLAYER WITH RDS TUNER

DEH-M7026ZH EW
DEH-M7526ZH EW

COMPACT disc DIGITAL AUDIO

- See the separate manual CX-597(CRT1829) for the CD mechanism description, disassembly and circuit description.
- The CD mechanism employed in this model is one of CX-597 series.

VEHICLE	DESTINATION	PRODUCED AFTER	HONDA PART No.	ID No.	PIONEER MODEL No.
	Europe	July 1997	08A06-386-200	838DA	DEH-M7026ZH/EW
	Europe		08A06-386-500	838DW	DEH-M7526ZH/EW

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K-ZES. AUG. 1997 Printed in Belgium

● **CD Player Service Precautions**

1. For pickup unit(CXX1230) handling, please refer to"Disassembly"(CX-597 Service Manual CRT1829). During replacement, handling precautions shall be taken to prevent an electrostatic discharge(protection by a short pin).
2. During disassembly, be sure to turn the power off since an internal IC might be destroyed when a connector is plugged or unplugged.
3. Please checking the grating after changing the service pickup unit(see page 48).

1. SAFETY INFORMATION

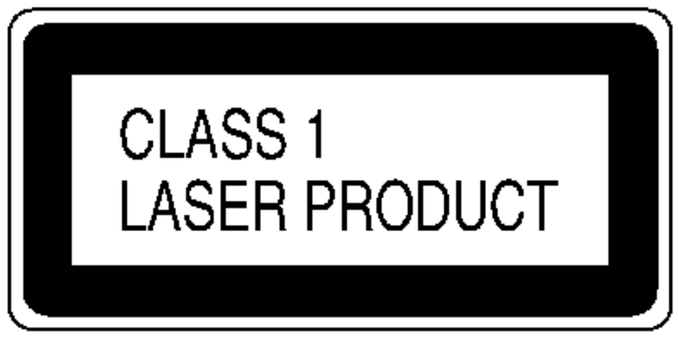
1. Safety Precautions for those who Service this Unit.

- **When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.**

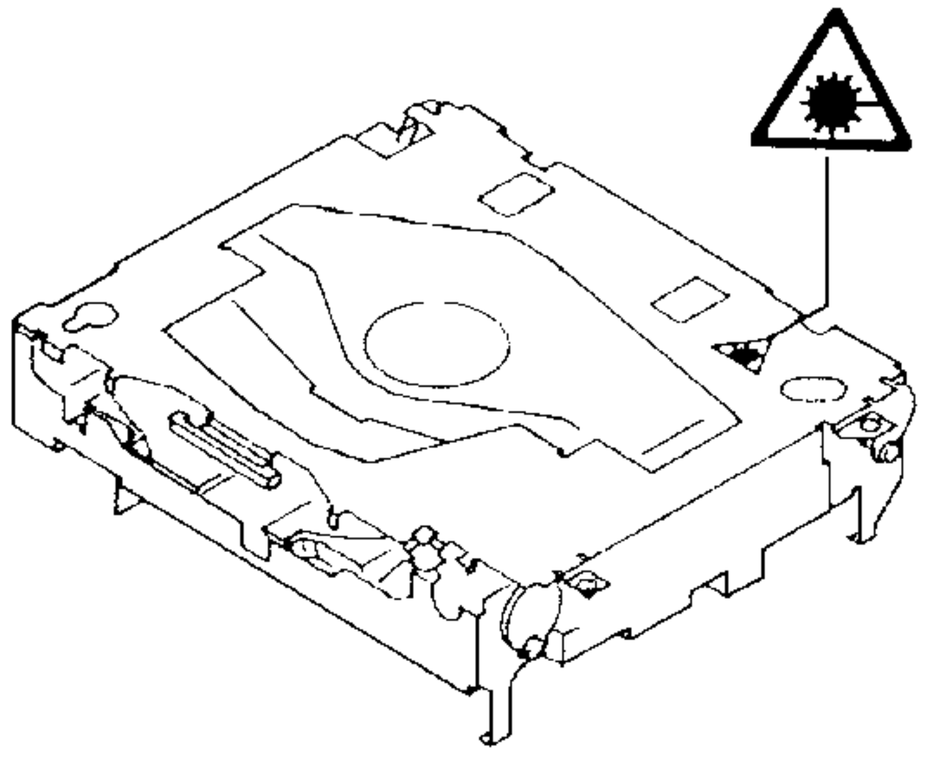
Caution:

1. During repair or tests, minimum distance of 13cm from the focus lens must be kept.
2. During repair or tests, do not view laser beam for 10 seconds or longer.

2. A "CLASS 1 LASER PRODUCT" label is affixed to the rear of the player.



3. The triangular label is attached to the mechanism unit frame.



4. Specifications of Laser Diode

Specifications of laser radiation fields to which human access is possible during service.
Wavelength = 800 nanometers

2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING

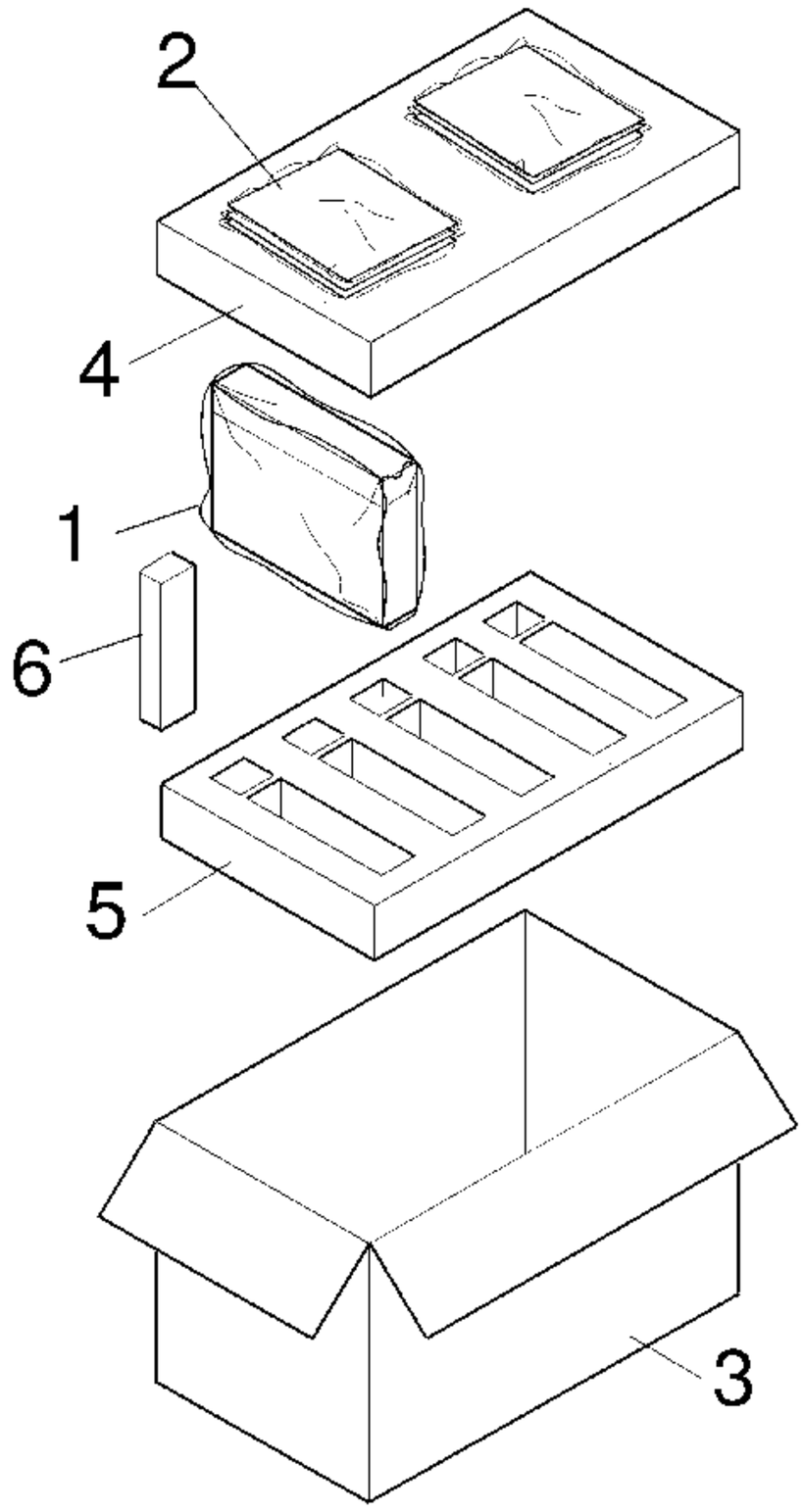


Fig. 1

NOTE:

- Parts marked by "*"are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ▼ mark on the product are used for disassembly.

● PACKING SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Polyethylene Bag	CEG-162
	2-1	Polyethylene Bag	CEG1116
	2-2	Owner's Manual	CRD2516
	3	Contain Box(M7026ZH)	CHL3379
		Contain Box(M7526ZH)	CHL3389
	4	Protector	CHP1992
	5	Protector	CHP1962
	6	Case Assy	CXA7080

● Owner's Manual

Model	Part No.	Language
DEH-M7026ZH/EW DEH-M7526ZH/EW	CRD2516	English, Dutch,French, German, Spanish,Italian,Portuguese,Swedish

2.2 EXTERIOR

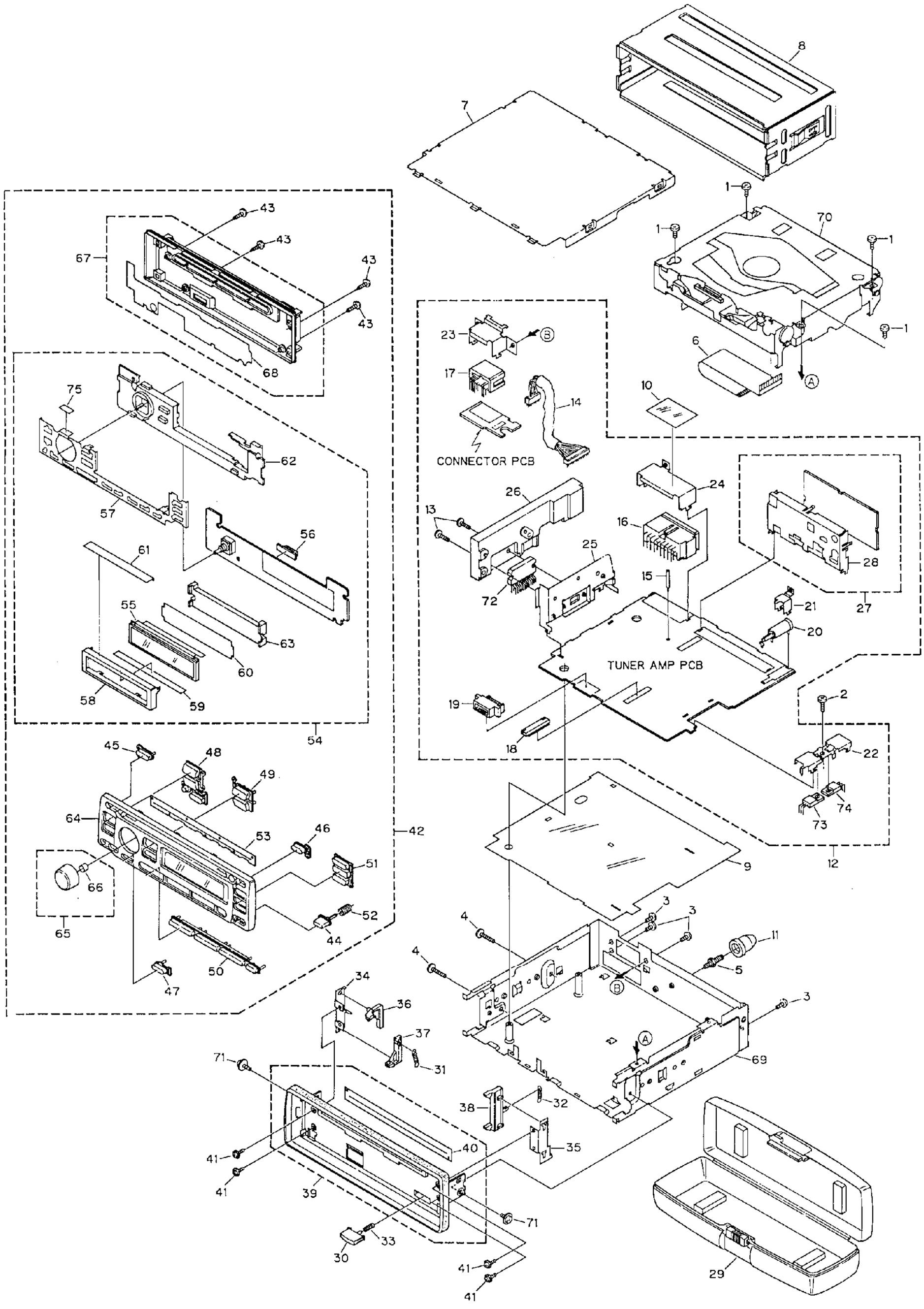


Fig. 2

(1)EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No.
1	Screw	BMZ26P050FMC
2	Screw	BMZ26P080FMC
3	Screw	BMZ30P050FMC
4	Screw	BMZ30P160FMC
5	Screw	CBA1002
6	Connector	CDE5334
7	Case	CNB2132
8	Holder	CNC5349
9	Insulator	CNM5149
10	Insulator	CNM5150
11	Bush	CNV3839
12	Tuner Amp Unit	CWM5031
13	Screw	BMZ26P140FMC
14	Cord Assy(CN601)	CDE5217
15	Clamper	CEF1004
16	Connector(CN551)	CKM1078
17	Connector(CN603)	CKM1208
18	Connector(CN901)	CKS1963
19	Connector(CN651)	CKS3581
20	Antenna Jack(ANT501)	CKX1006
21	Holder	CNC4569
22	Holder	CNC6132
23	Holder	CNC6452
24	Holder	CNC6908
25	Holder	CNC6909
26	Heat Sink	CNR1437
27	FM/AM Tuner Unit	CWE1416
28	Holder	CNC6555
29	Case Assy	CXA7080
30	Button	CAC5180
31	Spring	CBH1834
32	Spring	CBH1835
33	Spring	CBH1996
34	Bracket	CNC6780
35	Bracket	CNC6791
36	Arm	CNV4692
37	Arm	CNV4693
38	Arm	CNV4951
39	Panel Unit	CXB1756
40	Cover	CNM4875
41	Screw	IMS20P030FZK
42	Detach Grille Assy	See Contrast table(2)
43	Screw	BPZ20P100FZK
44	Button(Eject)	CAC4945
45	Button(Eject)	CAC4946
46	Button(News)	CAC4947
47	Button(Mode)	CAC4948
48	Button(DA.SEL)	CAC4949
49	Button(Tuner,Disc)	CAC4950
50	Button(1-6,RPT)	CAC4951
51	Button(TA,PTY,AF)	CAC4952
52	Spring	CBH1942
53	Cover	CNM4704
54	Keyboard Unit	See Contrast table(2)
55	LCD(LCD951)	CAW1398
56	Connector(CN951)	CKS3580
57	Conductor	CNC6910
58	Holder	CNC6911
59	Insulator	CNM4735
60	Plate	CNM5128
61	Spacer	CNM5431
62	Lighting Conductor	CNV4810
63	Lighting Conductor	CNV4811
64	Grille Unit	See Contrast table(2)
65	Knob Unit	CXA9770
66	Spring	CBL-108
67	Cover Unit	CXB1755
68	Cover	CNS4279
69	Chassis Unit	CXA9767
70	CD Mechanism Module(S7)	CXK5023
71	Screw	IMS30P050FMC
72	IC(IC551)	TDA7384A
73	Transistor(Q916)	2SD2396
74	Transistor(Q917)	2SB942A
75	Spacer	See Contrast table(2)

(2) CONTRAST TABLE

DEH-M7026ZH/EW and DEH-M7526ZH/EW have the same construction except for the following:

Mark No.	Symbol & Description	Part No.	
		DEH-M7026ZH/EW	DEH-M7526ZH/EW
42	Detach Grille Assy	CXA9644	CXB2125
54	Keyboard Unit	CWM5030	CWM5716
64	Grille Unit	CXB2165	CXB2126
75	Spacer	Not used	CNM5608

2.3 CD MECHANISM MODULE

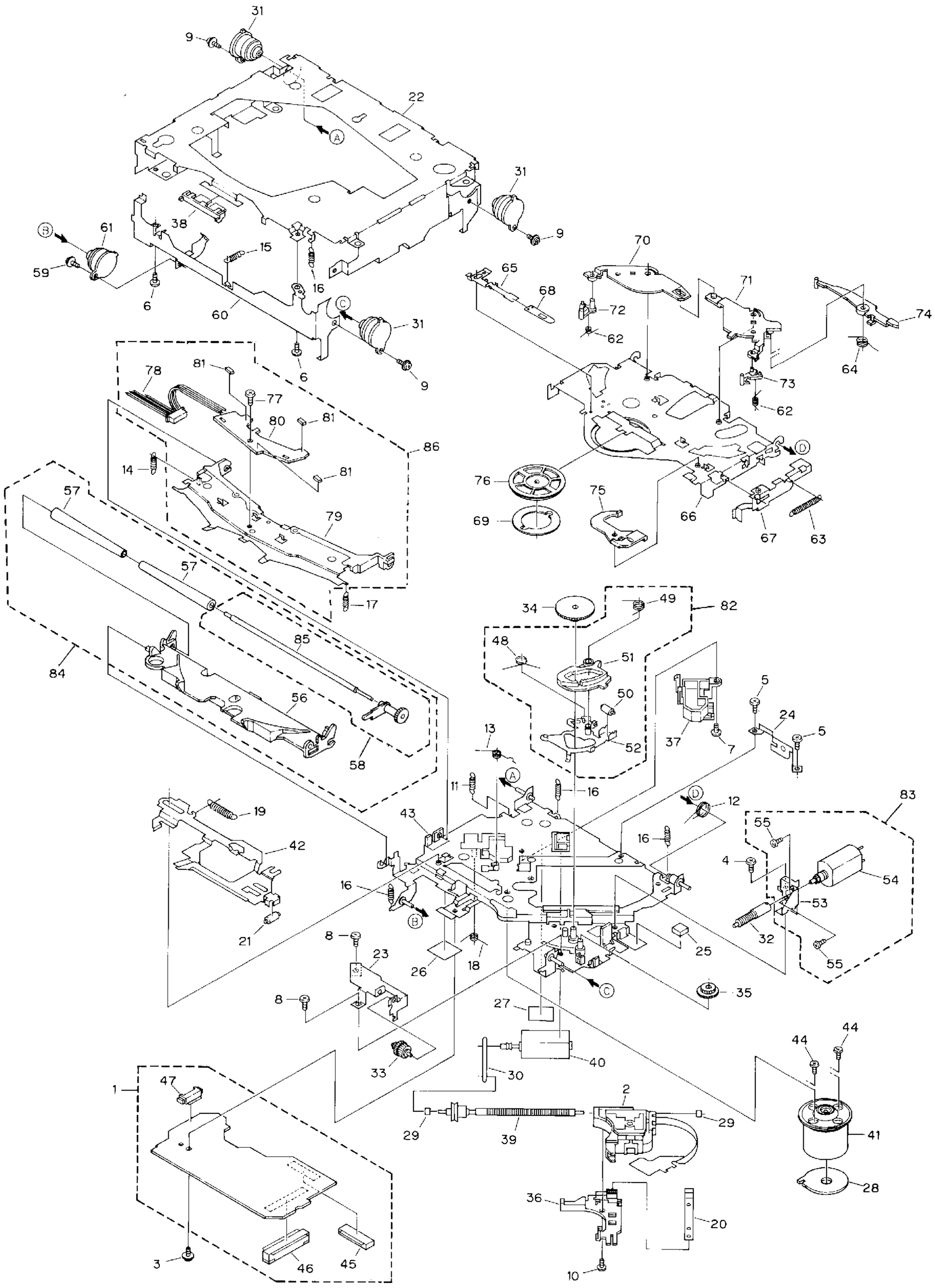


Fig. 3

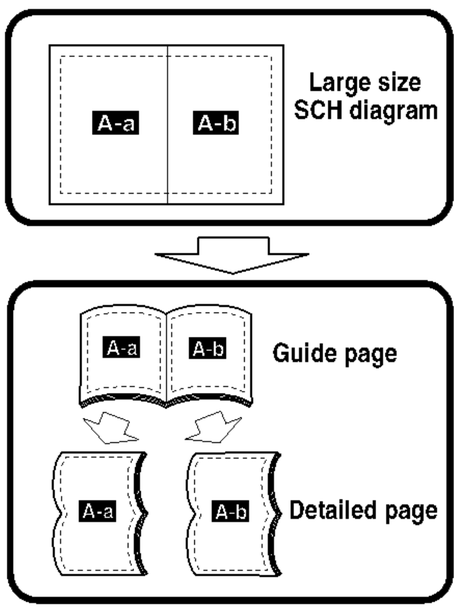
● CD MECHANISM MODULE SECTION PARTS LIST

	Mark	No.	Description	Part No.
		1	Control Unit	CWX2139
		2	Pickup Unit (Service)	CXX1230
		3	Screw	IMS26P035FMC
		4	Screw	BMZ20P025FMC
		5	Screw	BMZ20P040FMC
		6	Screw	BSZ20P040FMC
		7	Screw (M2×3)	CBA1077
		8	Screw (M2×2)	CBA1250
		9	Screw (M2×5)	CBA1296
		10	Screw (M2×3.85)	CBA1362
		11	Spring	CBH1724
		12	Spring	CBH1729
		13	Spring	CBH1730
		14	Spring	CBH1731
		15	Spring	CBH1732
		16	Spring	CBH1745
		17	Spring	CBH1848
		18	Spring	CBH1849
		19	Spring	CBH1939
		20	Spring	CBL1214
		21	Roller	CLA2627
		22	Frame	CNC5796
		23	Bracket	CNC5871
	*	24	Bracket	CNC6376
		25	Cushion	CNM3917
		26	Sheet	CNM4873
	*	27	Sheet	CNM5116
		28	PCB	CNP4230
		29	Bearing	CNR1415
		30	Belt	CNT1071
		31	Damper	CNV3974
		32	Gear	CNV4128
		33	Gear	CNV4129
		34	Gear	CNV4857
		35	Gear	CNV4131
		36	Holder	CNV4663
		37	Holder	CNV5071
		38	Guide	CNV4484
		39	Screw Unit	CXA8699
		40	CRG Motor Unit (M2)	CXA8986
		41	Motor Unit (M1)	CXA9101
		42	Lever Unit	CXA9300
		43	Chassis Unit	CXA9515
		44	Screw	JFZ20P025FMC
		45	Connector (CN101)	CKS1953
		46	Connector (CN701)	CKS2774
		47	Connector (CN801)	CKS2196
		48	Spring	CBH1832
		49	Spring	CBH1833
		50	Roller	CLA2627
		51	Arm	CNV4136
		52	Arm Unit	CXA8565
		53	Bracket	CNC6056
		54	Load Motor Unit (M3)	CXB2124
		55	Screw	JFZ20P025FMC
		56	Arm	CNV4120
		57	Roller	CNV4509
		58	Gear Unit	CXA8701
		59	Screw (M2×5)	CBA1296
		60	Frame	CNC5797
		61	Damper	CNV3974
		62	Spring	CBH1736
		63	Spring	CBH1863
		64	Spring	CBH1945
		65	Spring	CBL1326
		66	Arm	CNC5799
		67	Lever	CNC6054
		68	Spacer	CNM3315
		69	Sheet	CNM4849
		70	Arm	CNV5031
		71	Arm	CNV4123
		72	Arm	CNV4124
		73	Arm	CNV4125
		74	Arm	CNV4138
		75	Arm	CNV5032
		76	Clamper	CNV4140
		77	Screw (M2×2)	CBA1250
		78	Connector	CDE4576
		79	Arm	CNC7383
	*	80	Gathering PCB	CNX2533
		81	Photo-transistor (Q1,2,3)	CPT-230S-X
		82	Elbo Arm Assy	CXA8889
		83	Load Motor Assy	CXB2123
		84	LO Arm Assy	CXA8892
		85	Shaft	CLA3133
		86	Guide Arm Assy	CXB1851

3. SCHEMATIC DIAGRAM

3.1 OVERALL CONNECTION DIAGRAM (GUIDE PAGE)

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".



A-a

A

A-b

SOURCE	E-VOL SELECTOR GAIN
AM	20dB
FM	20dB
S-CD	6dB
CD-M	6dB

TUNER AMP UNIT
Consists of
TUNER AMP PCB
CONNECTOR PCB

TUNER AMP PCB

CONNECTOR PCB

IC801 PD6223A RDS

IC701 PD4763A SYSTEM CONTROL

BUS DRIVER

SN761025DL ELECTRONIC VOLUME

TDA7384A POWER AMP

ISOLATOR

8.5V REGULATOR

5V REGULATOR

ANT CONTROL

CDML:+6dBs
CDL:+6dBs
TUL(FM):+8dBs
TUL(AM):-2dBs

CDML:-4.4dBs
CDL:-4.6dBs
TUL(FM):-16.4dBs
TUL(AM):-26.4dBs

+32dBs

NOTE:
- Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022

BOARD UNIT

Fig. 4

A-b

A-a

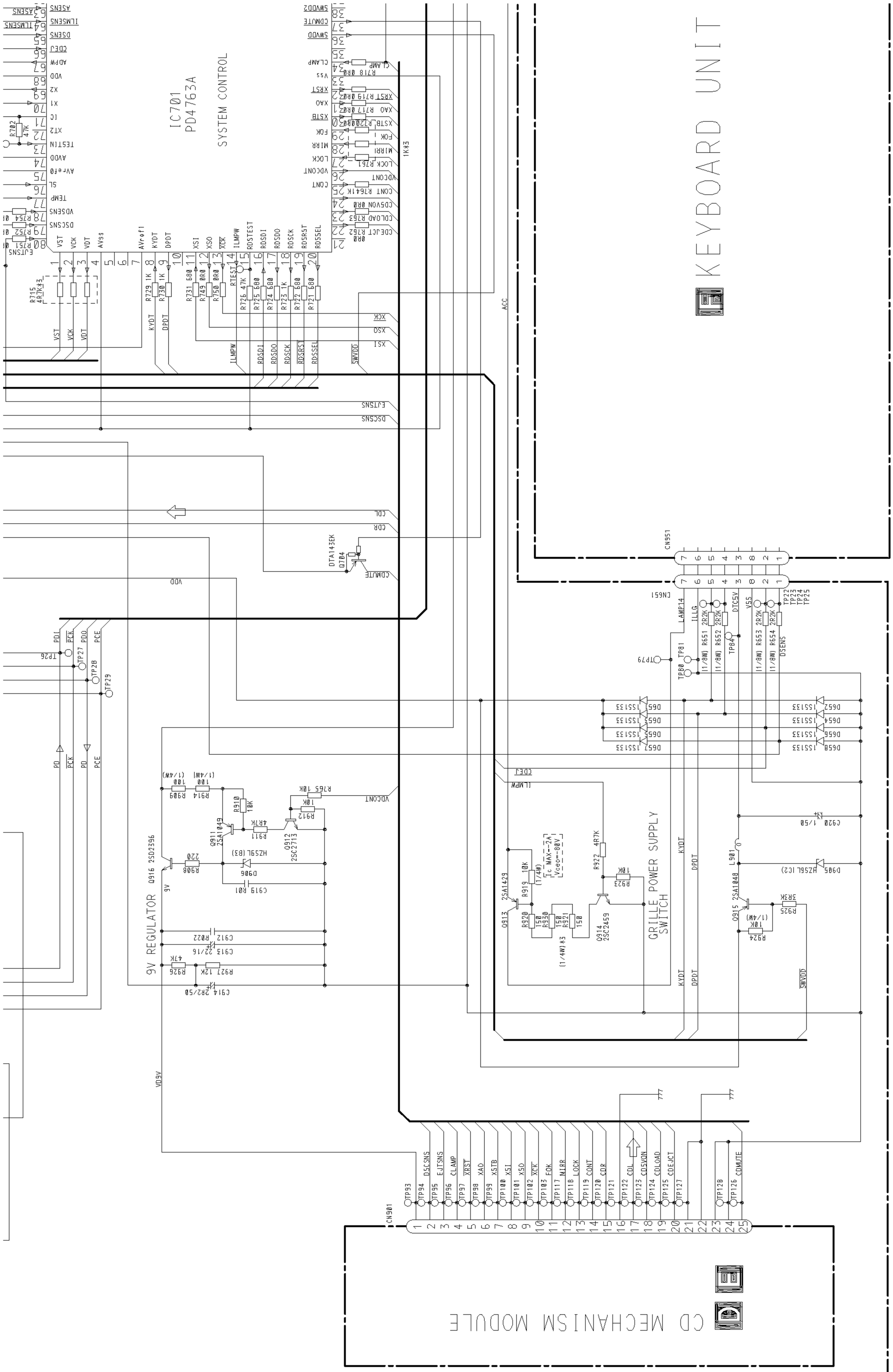

KEYBOARD UNIT
IC701
PD4763A
SYSTEM CONTROL
CN951
CN651
CN901
9V REGULATOR
GRILLE POWER SUPPLY SWITCH
CD MECHANISM MODULE

Fig. 5

A-a A-b

TUNER AMP UNIT
Consists of
TUNER AMP PCB
CONNECTOR PCB

TUNER AMP PCB

CONNECTOR PCB

CDML:+6dBs
CDL:+6dBs
TUL(FM):+8dBs
TUL(AM):−2dBs

CDML:−4.4dBs
CDL:−4.6dBs
TUL(FM):−16.4dBs
TUL(AM):−26.4dBs

SOURCE	E-VOL SELECTOR GAIN
AM	20dB
FM	20dB
S-CD	6dB
CD-M	6dB

IC451 SN761025DL — ELECTRONIC VOLUME

IC801 PD6223A — RDS

IC601 TA2050S — ISOLATOR

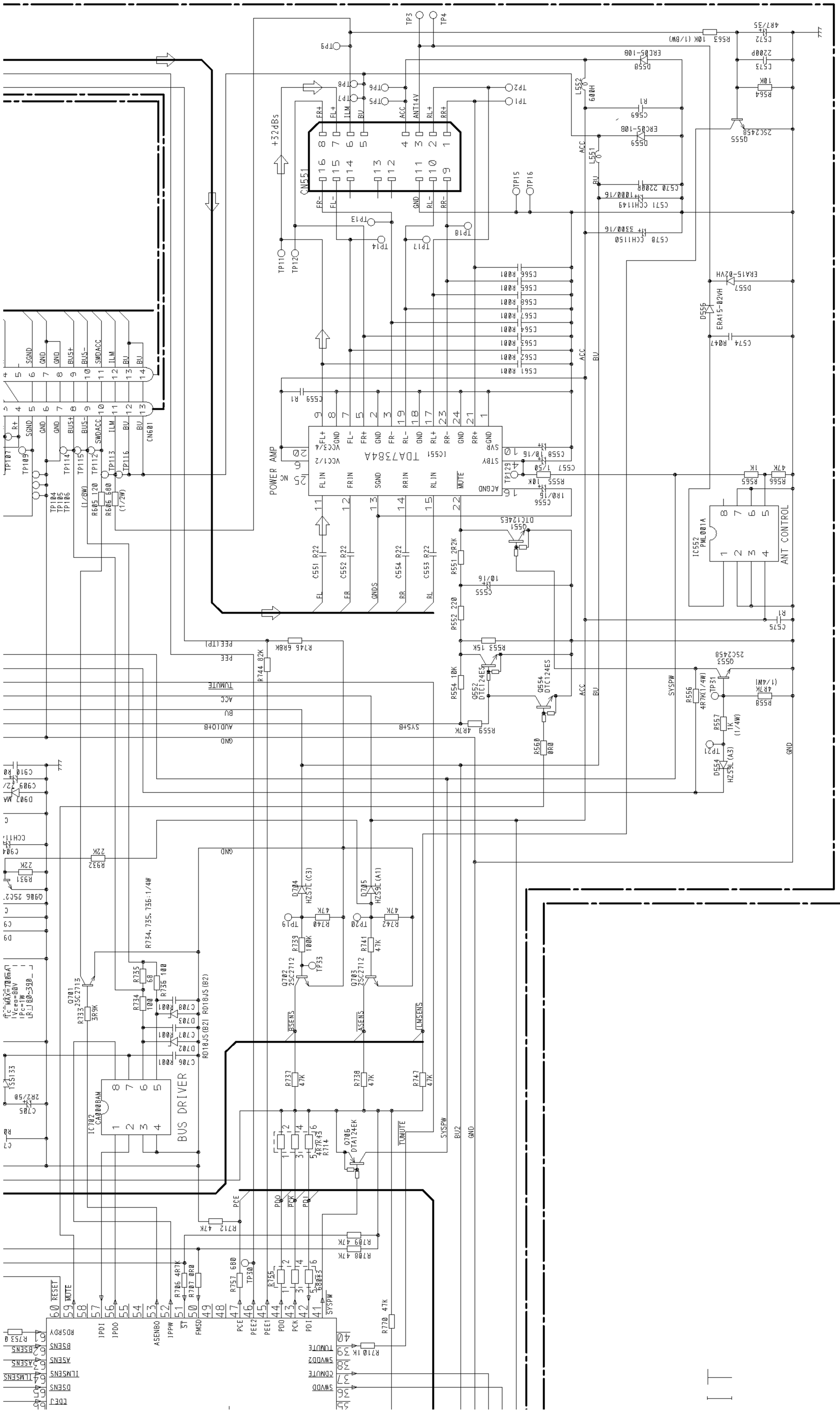
5V REGULATOR

8.5V REGULATOR

CN603

12

A-b C



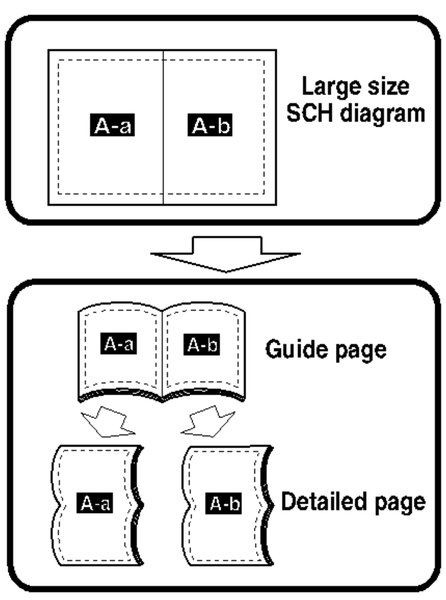
A-a A-b

Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022

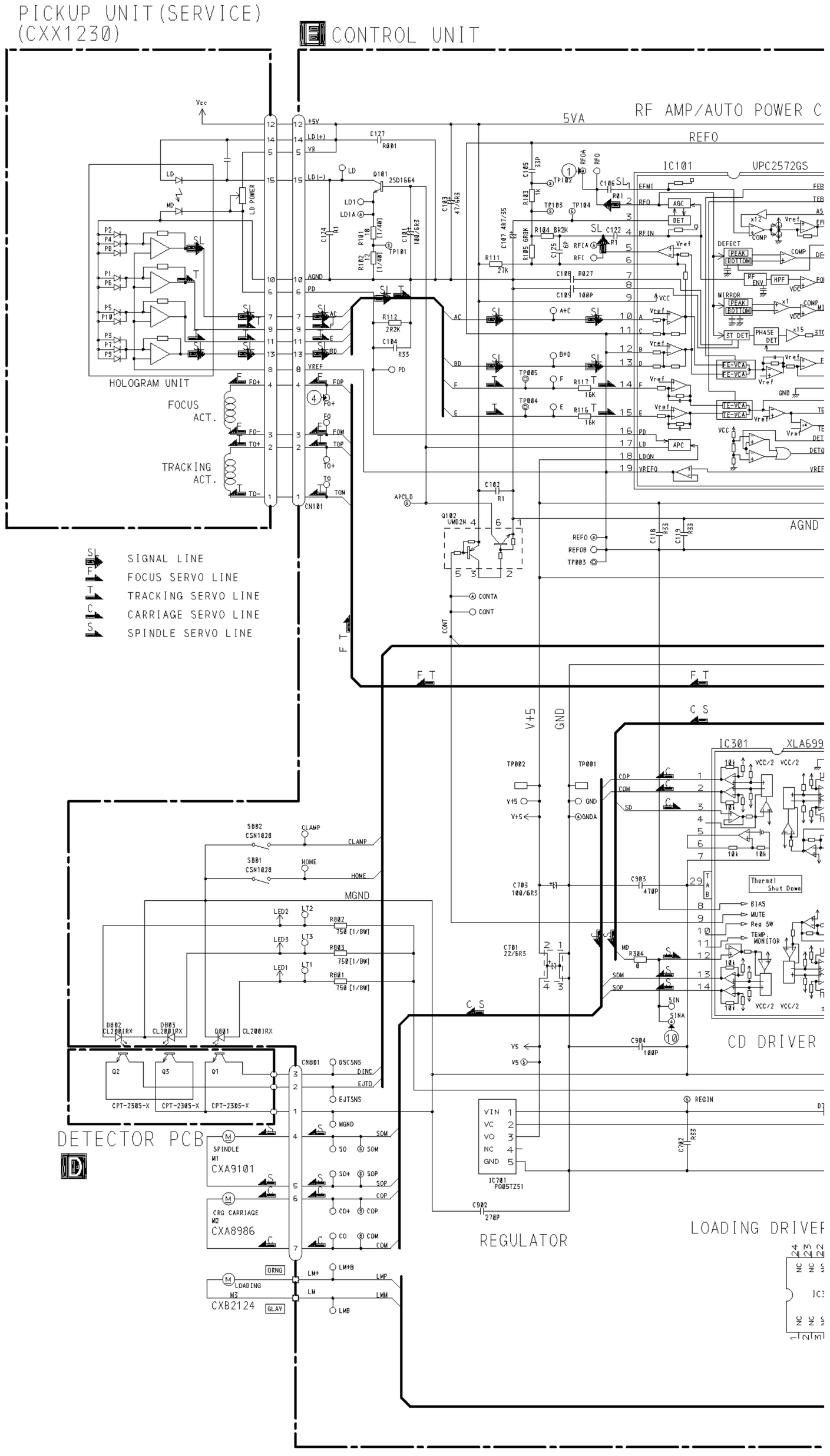
NOTE:
- ⊣⊢ Symbol indicates a resistor. No differentiation is made between discrete resistors.
- ⊣⊢ Symbol indicates a capacitor. No differentiation is made between discrete capacitors.

Fig. 6

3.2 CD MECHANISM MODULE



E-a



E-b

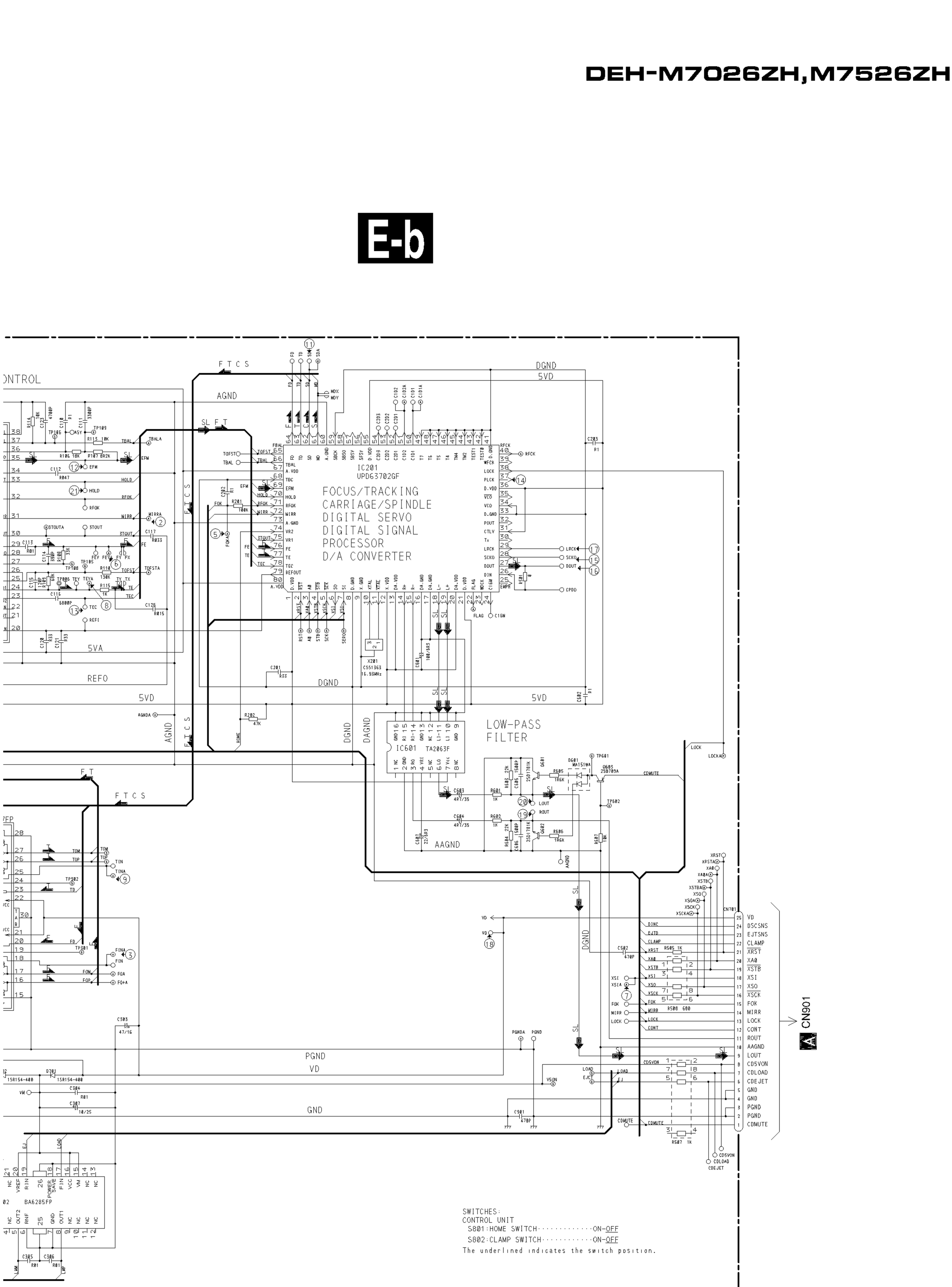

IC201
UPD63702GF
FOCUS/TRACKING
CARRIAGE/SPINDLE
DIGITAL SERVO
DIGITAL SIGNAL
PROCESSOR
D/A CONVERTER
IC601 TA2063F
LOW-PASS
FILTER
BA6285FP
CN901
CONTROL
AGND
DGND
5VD
5VA
REFO
AAGND
PGND
VD
GND
FTCS
SLFT
SWITCHES:
CONTROL UNIT
S801:HOME SWITCH·····ON-OFF
S802:CLAMP SWITCH·····ON-OFF
The underlined indicates the switch position.

Fig. 7

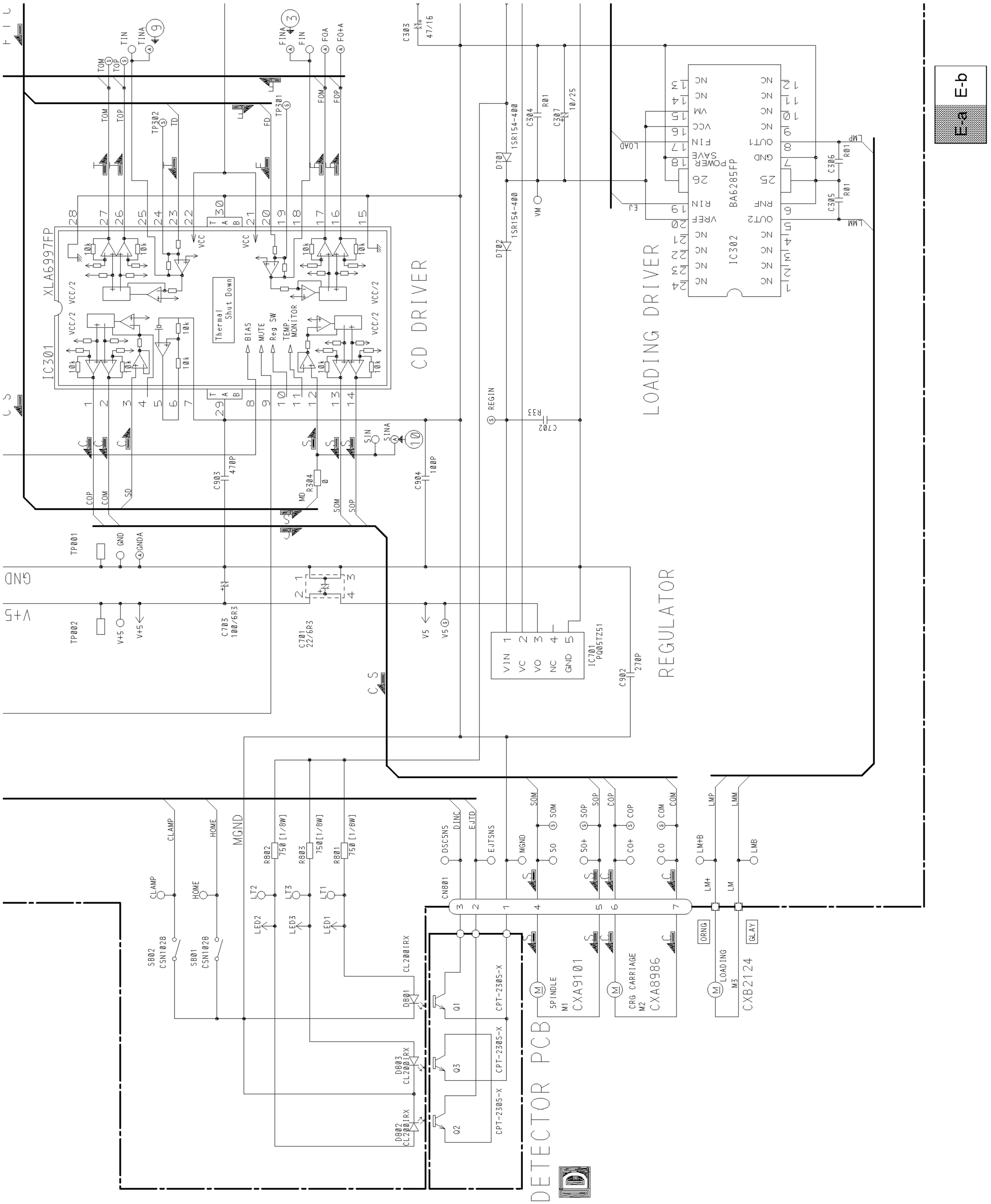
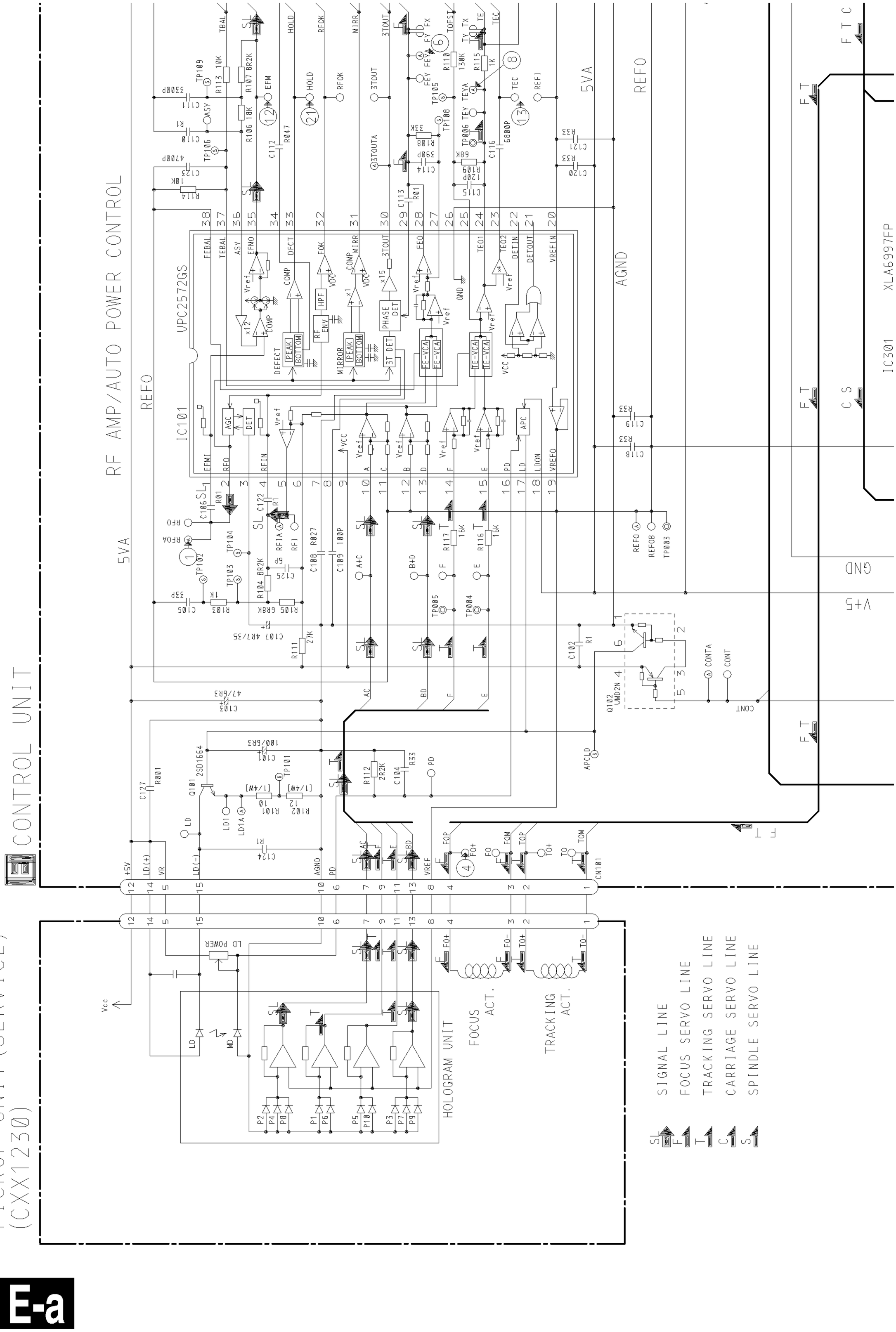

XLA6997FP
IC301
CD DRIVER
LOADING DRIVER
REGULATOR
DETECTOR PCB
IC302
BA6285FP
IC701
PQ05TZ51
CN801
SPINDLE
M1
CXA9101
CRG CARRIAGE
M2
CXA8986
LOADING
M3
CXB2124
SB02
CSN1028
SB01
CSN1028
CL200IRX
CPT-2305-X
Q1
Q3
Q2
D803
D802
DB01
MGND
CLAMP
HOME
LED1
LED2
LED3
LT1
LT2
LT3
R801
R802
R803
750[1/8W]
TIN
TINA
TOM
TOP
TP302
TD
TP301
FD
FINA
FIN
FOA
FOP
FOM
C303
47/16
D701
D702
1SR154-400
C304
R01
C307
10/25
VM
LOAD
C305
C306
LMP
LMM
REGIN
R33
C702
SIN
SINA
C903
470P
C904
100P
R304
0
MD
COP
COM
SD
SOM
SOP
TP001
TP002
GND
GNDA
V+5
C703
100/6R3
C701
22/6R3
V5
C902
270P
DSCSNS
DINC
EJTD
EJTSNS
MGND
SO
SO+
CO+
CO
LM+B
LM+
LMB
LM
ORNG
GRAY
BIAS
MUTE
Reg SW
TEMP. MONITOR
Thermal Shut Down
VCC
VCC/2

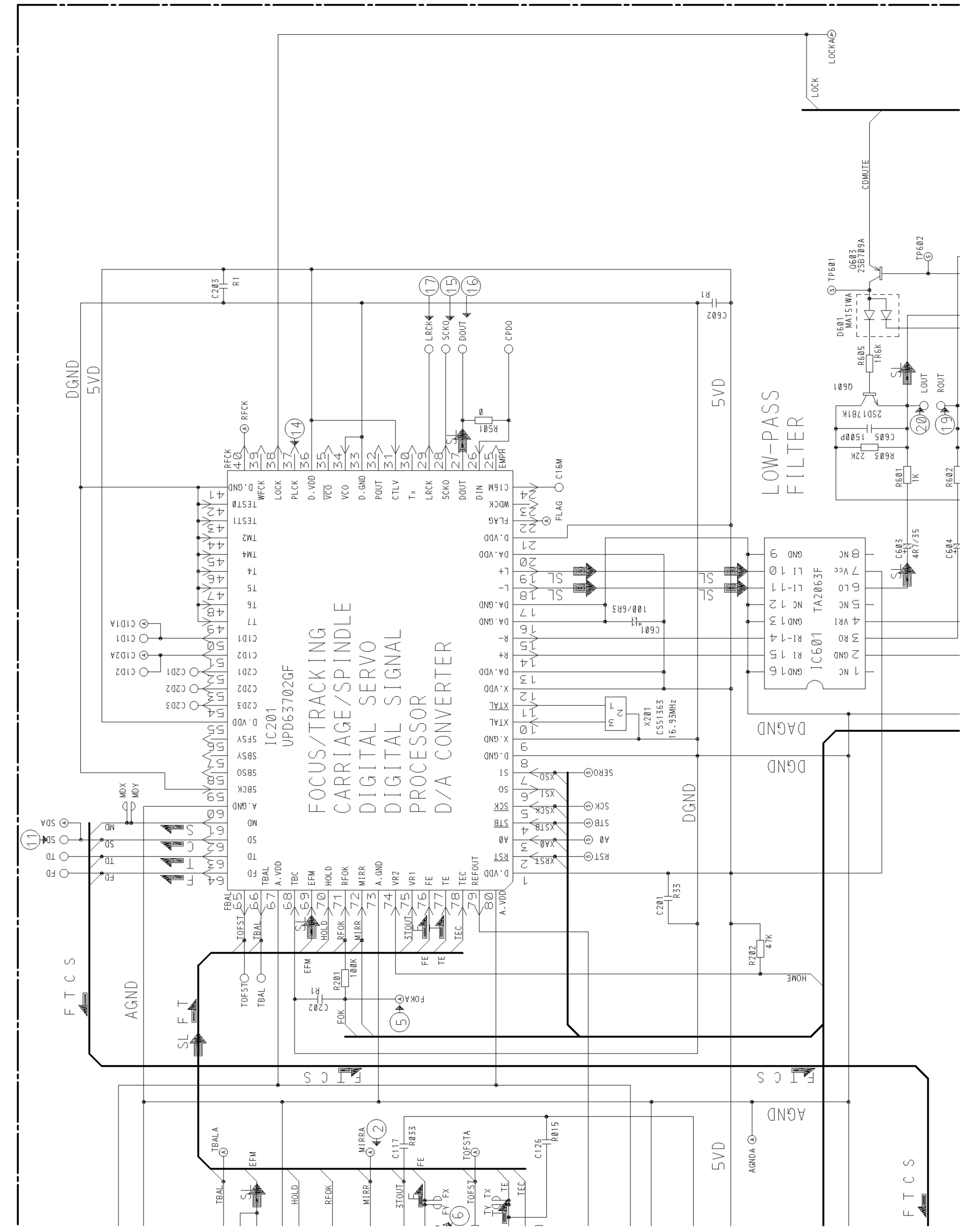
Fig. 8

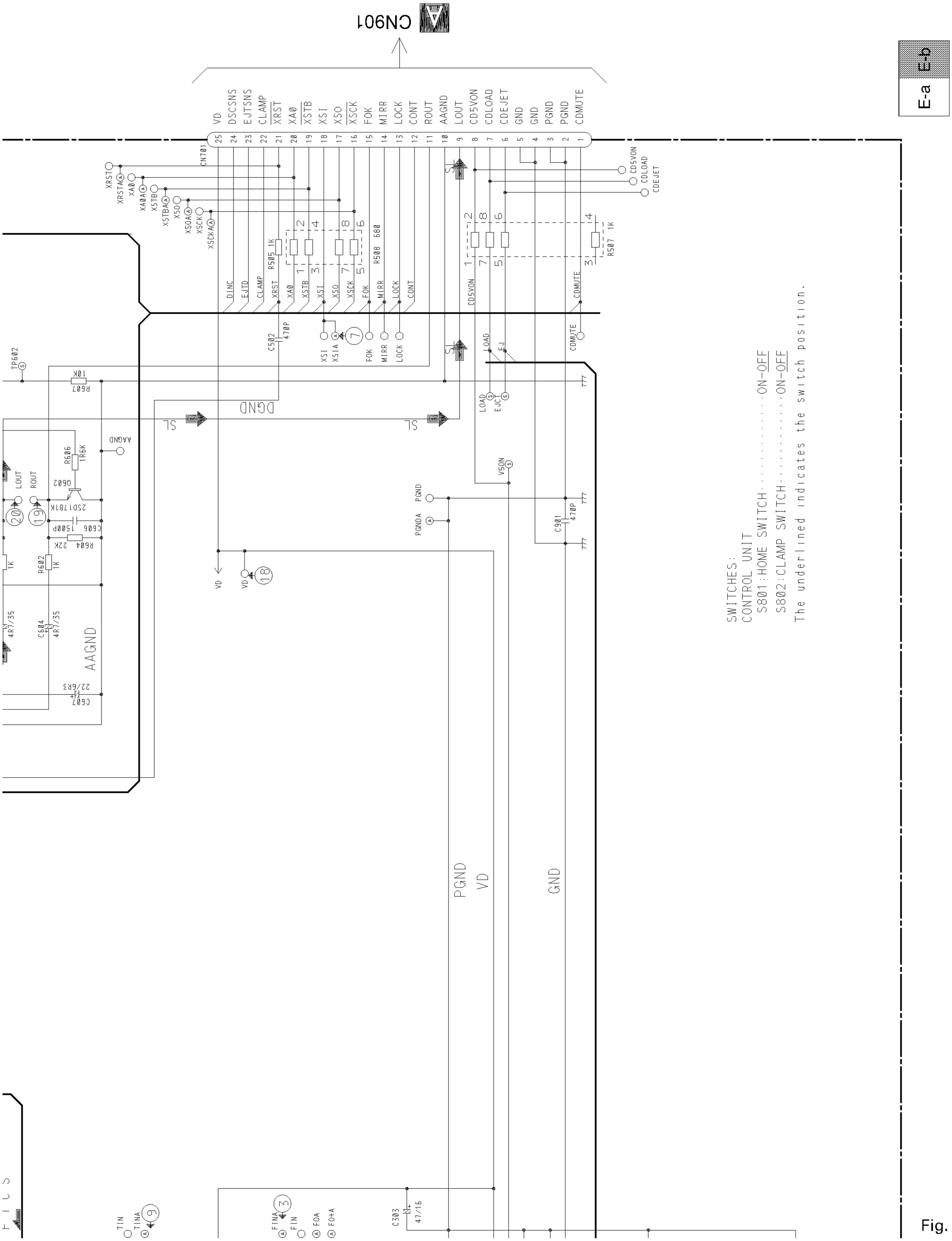
E-a E-b


CONTROL UNIT
RF AMP/AUTO POWER CONTROL
5VA
REFO
IC101
UPC2572GS
AGND
IC301
XLA6997FP
PICKUP UNIT (SERVICE)
(CXX1230)
HOLOGRAM UNIT
FOCUS ACT.
TRACKING ACT.
CN101
Q102 UMD2N
Q101 2SD1664
SIGNAL LINE
FOCUS SERVO LINE
TRACKING SERVO LINE
CARRIAGE SERVO LINE
SPINDLE SERVO LINE

E-a

E-b
E-a


IC201
UPD63702GF
FOCUS/TRACKING
CARRIAGE/SPINDLE
DIGITAL SERVO
DIGITAL SIGNAL
PROCESSOR
D/A CONVERTER
IC601
TA2063F
LOW-PASS
FILTER
DGND
5VD
AGND
LOCK
CDMUTE
LRCK
SCKO
DOUT
CPDO
RFCK
EMPH
C16M
FLAG
LOUT
ROUT
HOME
FOKA
TBALA
MIRRA
TOFSTA
SERO
SCK
STB
A0
RST
SDA
FD
TD
FE
TE
TEC
TBAL
EFM
HOLD
RFOK
MIRR
3TOUT
TOFST
MDX
MDY
X201
CS51363
16.93MHz
Q603
2SB709A
Q601
2SD1781K
D601
MA151WA
TP601
TP602
AGNDA



SWITCHES:
CONTROL UNIT
S801:HOME SWITCH·····ON-OFF
S802:CLAMP SWITCH·····ON-OFF
The underlined indicates the switch position.

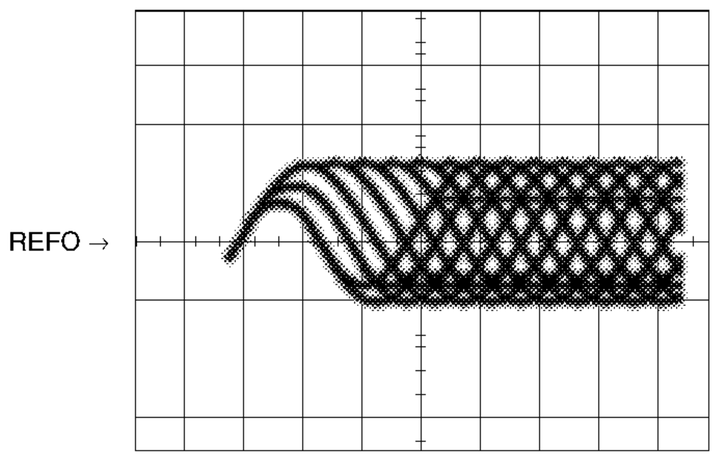
PGND
VD
GND

Fig. 9

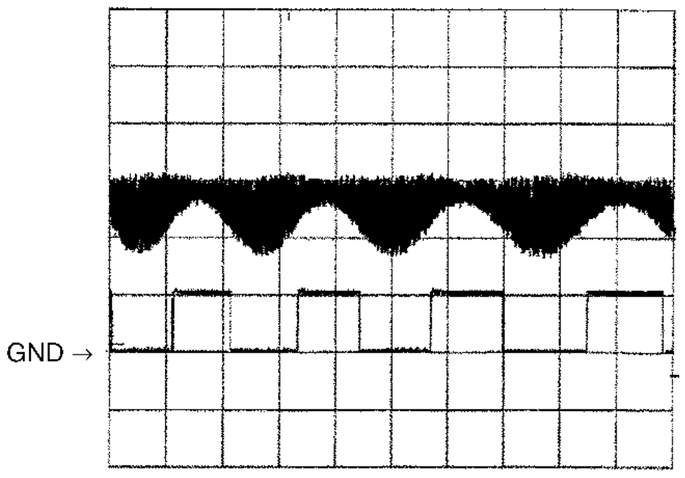
Note:1. The encircled numbers denote measuring pointes in the circuit diagram.
2. Reference voltage
REFO:2.5V

● Waveforms

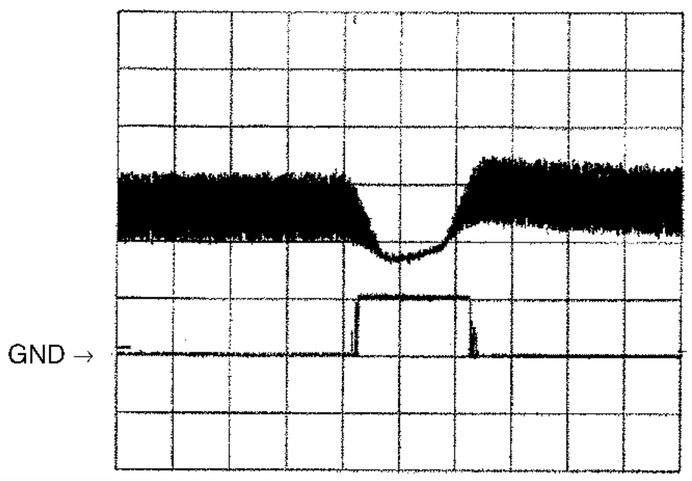
① RFO 0.5V/div. 0.5µs/div.
Normal mode: play



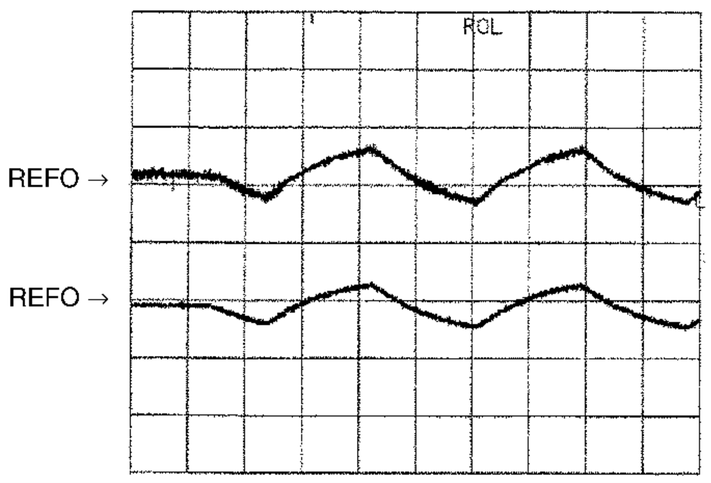
① CH1: RFO 1V/div.
② CH2: MIRR 5V/div. 0.5ms/div.
Test mode: Tracking open



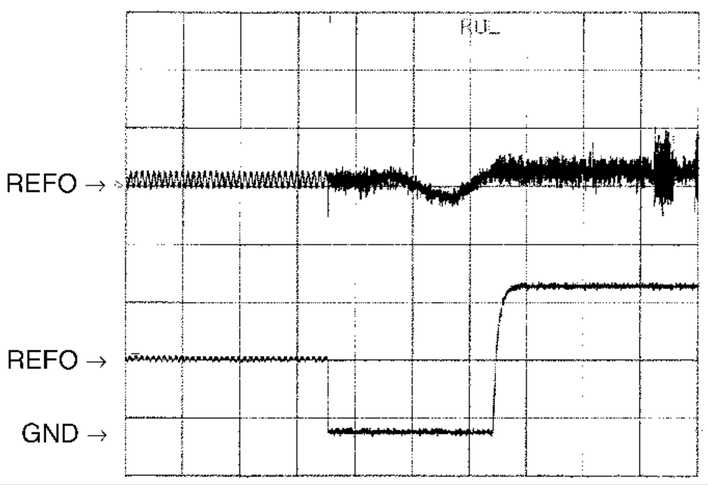
① CH1: RFO 1V/div.
② CH2: MIRR 5V/div. 0.5ms/div.
Nomal mode: The defect part passes



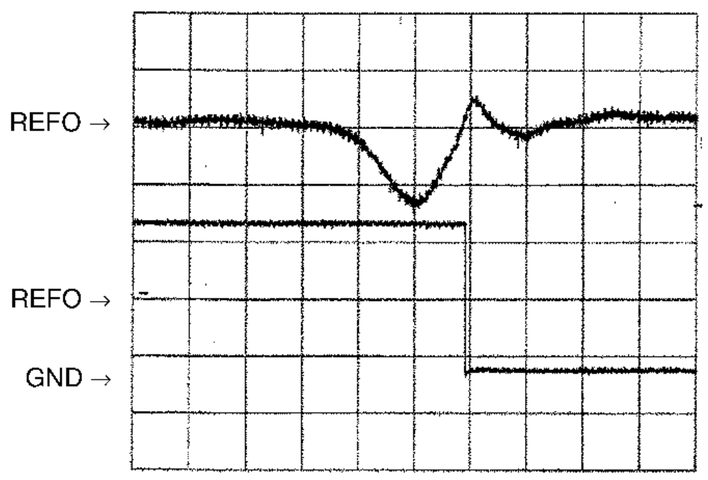
③ CH1: FIN 0.5V/div.
④ CH2: FO+ 2V/div. 0.2s/div.
Test mode: No disc, Focus close



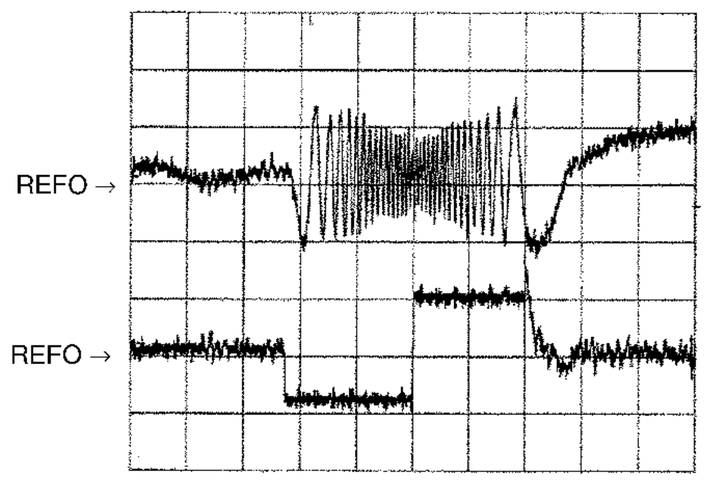
③ CH1: FIN 0.5V/div.
⑤ CH2: FOK 2V/div. 0.2s/div.
Normal mode: Focus close



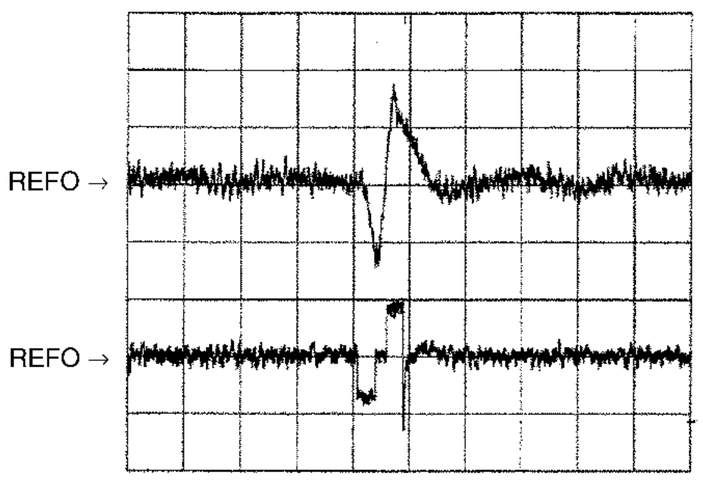
⑥ CH1: FEY 0.5V/div.
⑦ CH2: XSI 2V/div. 1ms/div.
Normal mode: Focus close



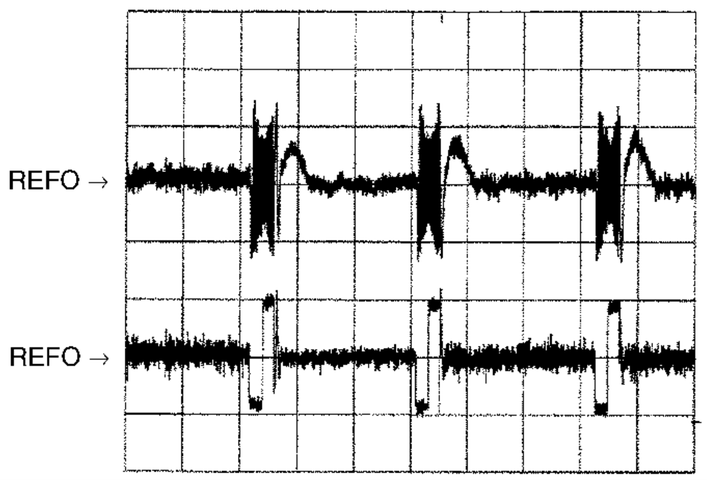
⑧ CH1: TEY 0.5V/div.
⑨ CH2: TIN 0.5V/div. 0.5ms/div.
Test mode: 32 tracks jump (FWD)



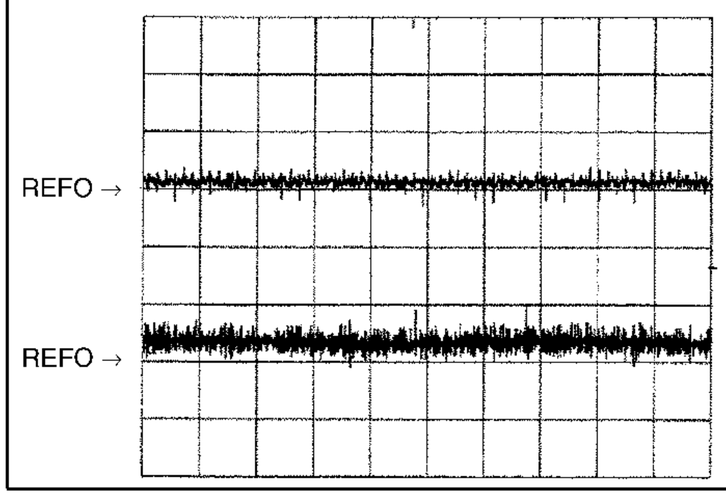
⑧ CH1: TEY 0.5V/div.
⑨ CH2: TIN 0.5V/div. 0.5ms/div.
Test mode: Single jump (FWD)



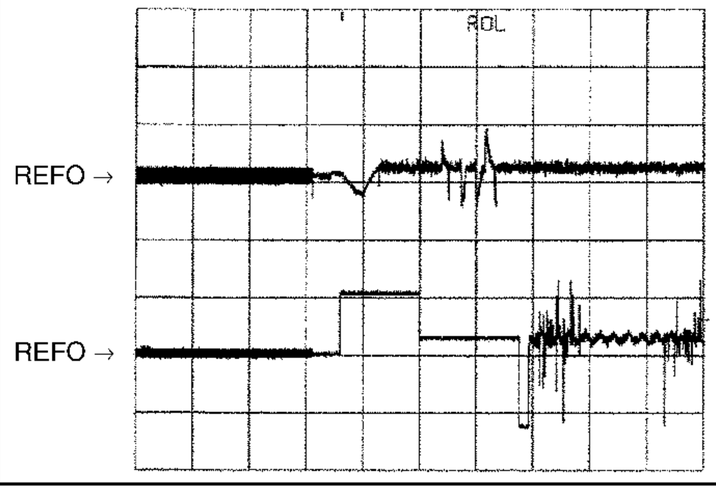
⑧ CH1: TEY 0.5V/div.
⑨ CH2: TIN 0.5V/div. 5ms/div.
Test mode: 100 tracks jump (FWD)



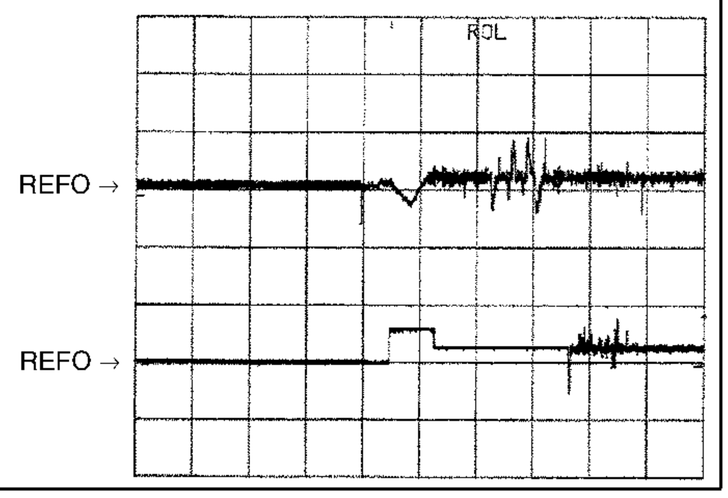
⑥ CH1: FEY 0.1V/div.
③ CH2: FIN 0.2V/div. 20ms/div.
Normal mode: Play



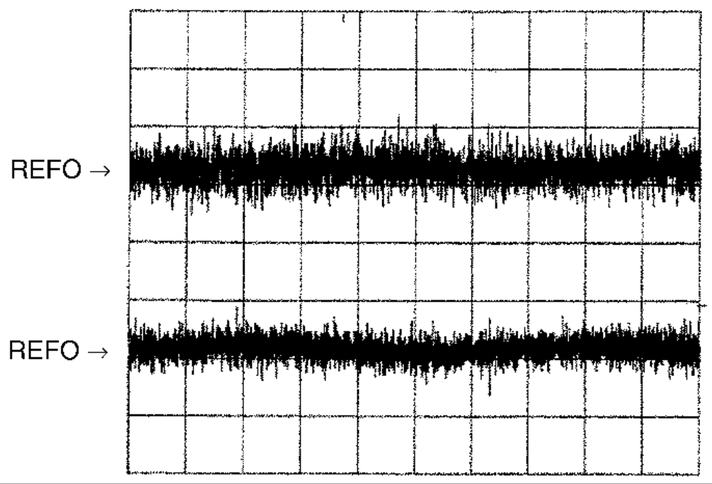
③ CH1: FIN 0.5V/div.
⑩ CH2: SIN 1V/div. 0.5s/div.
Normal mode: Focus close (12cm)



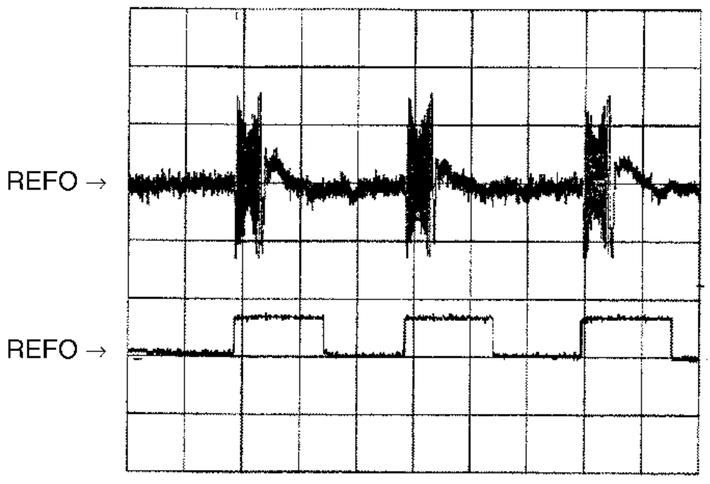
③ CH1: FIN 0.5V/div.
⑩ CH2: SIN 1V/div. 0.5s/div.
Normal mode: Focus close (8cm)



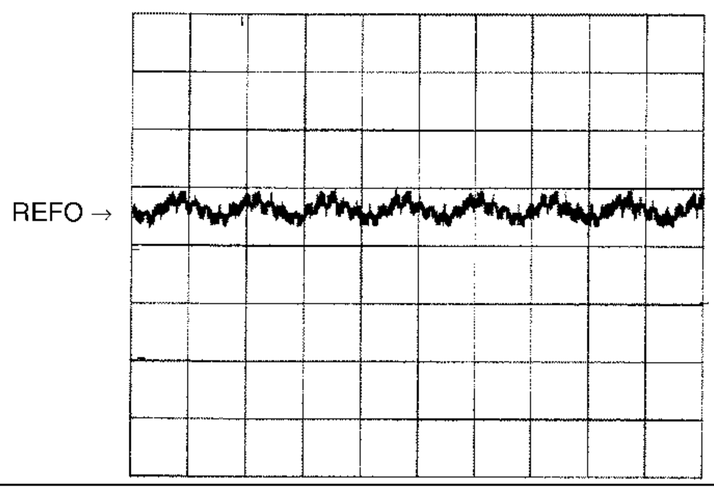
⑧ CH1: TEY 0.2V/div.
⑨ CH2: TIN 0.2V/div.
20ms/div.
Normal mode: play



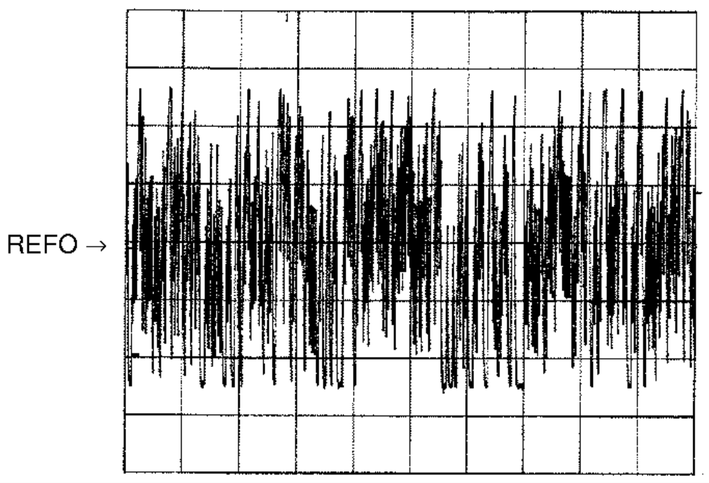
⑧ CH1: TEY 0.5V/div.
⑪ CH2: SD 0.5V/div.
5ms/div.



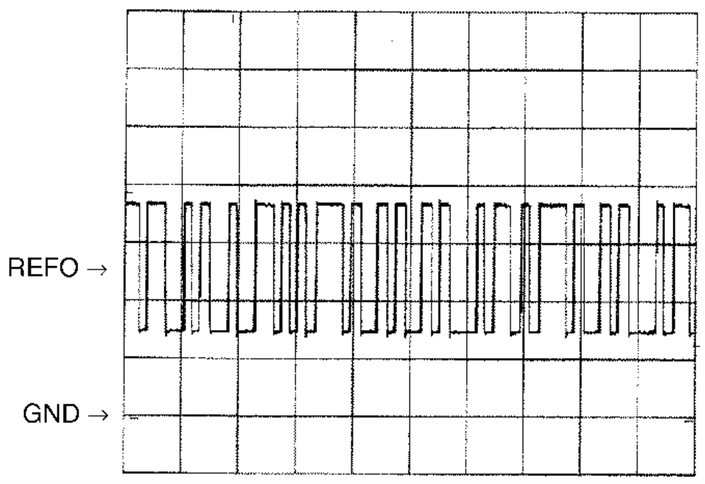
⑩ SIN 0.5V/div. 0.1s/div.
Normal mode: Play (12cm)



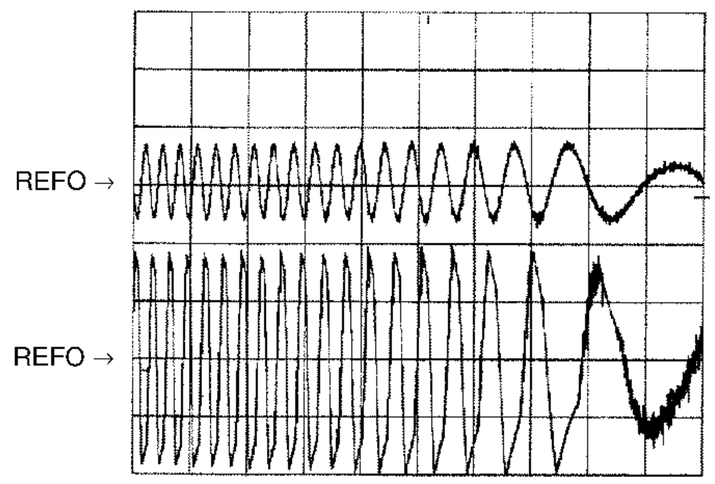
⑩ SIN 0.5V/div. 10ms/div.
Long Search (12cm)



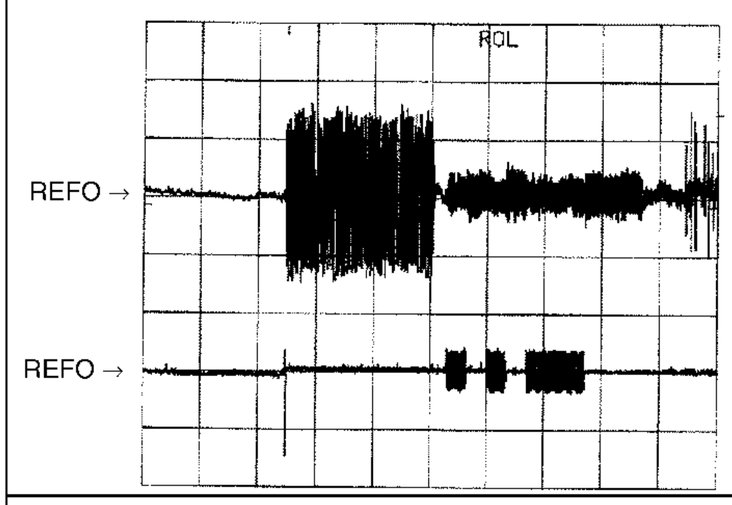
⑫ EFM 1V/div. 5µs/div.
Play



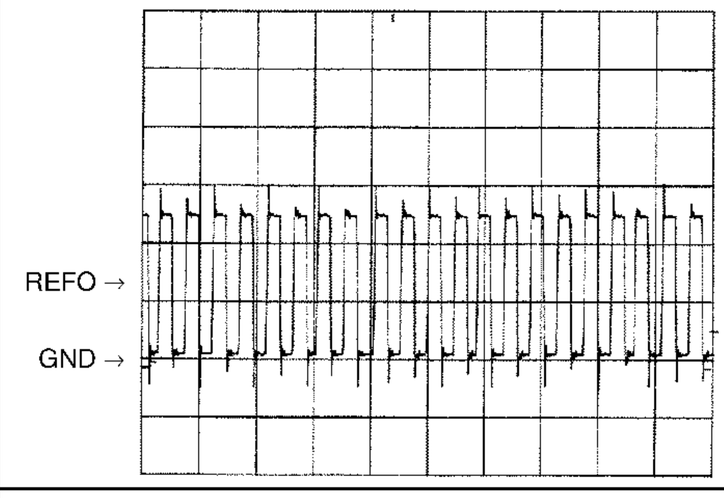
⑧ CH1: TEY 1V/div.
⑬ CH2: TEC 1V/div.
2ms/div.
Test mode: Focus close
Tracking open



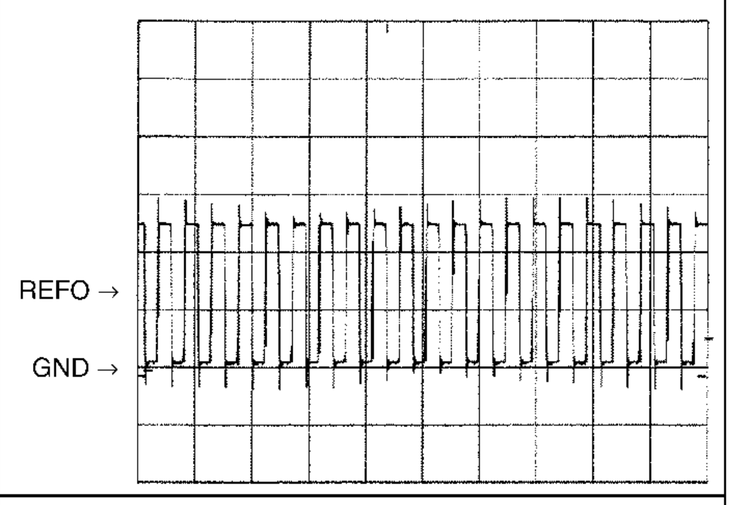
⑧ CH1: TEY 0.5V/div.
⑥ CH2: FEY 0.5V/div.
0.2s/div.
Normal mode: AGC after focus close



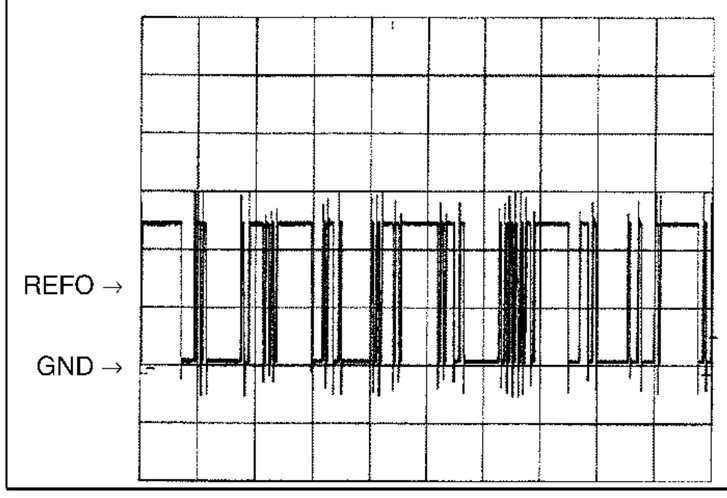
⑭ PLCK 2V/div. 0.5µs/div.
Play



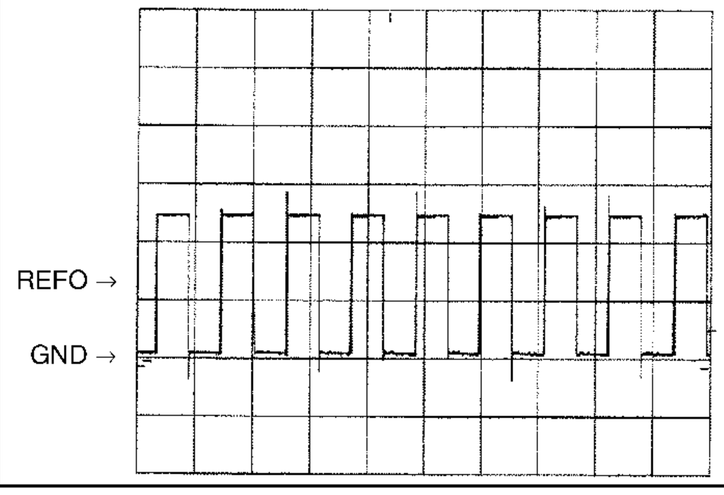
⑮ SCKO 2V/div. 1µs/div.
Play



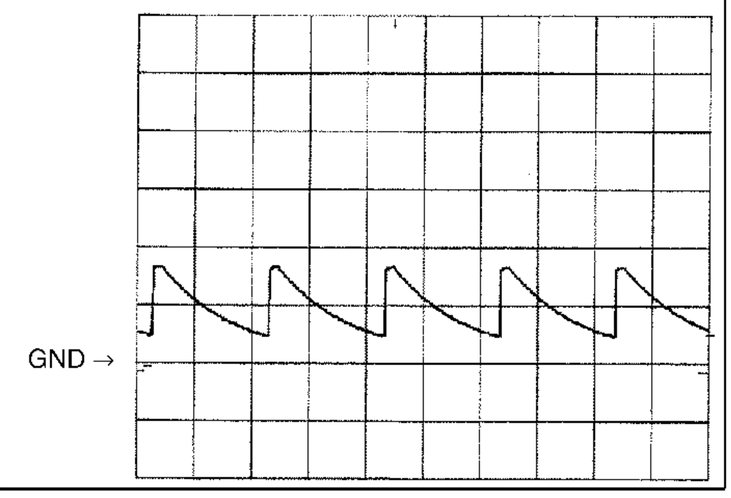
⑯ Dout 2V/div. 10µs/div.
Play



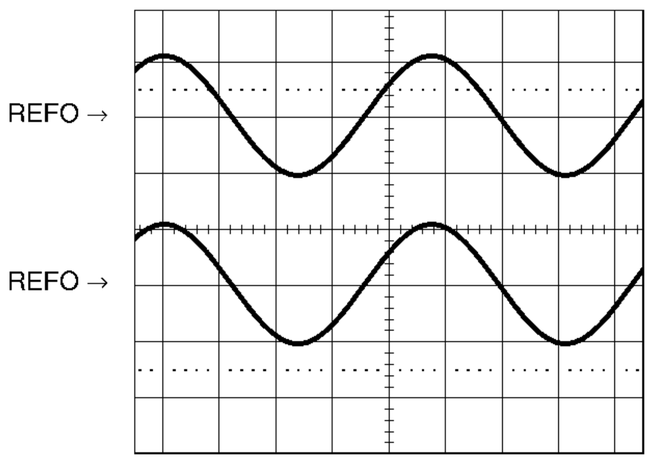
⑰ LRCK 2V/div. 20µs/div.



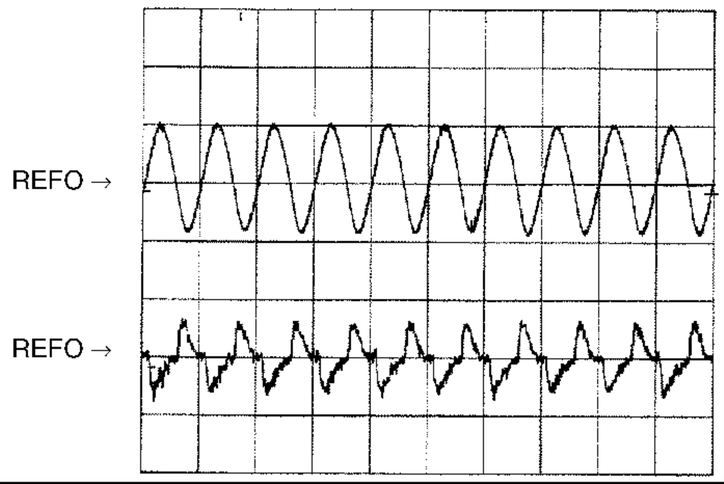
⑱ VD 5V/div. 50ms/div.
Normal mode: No disc



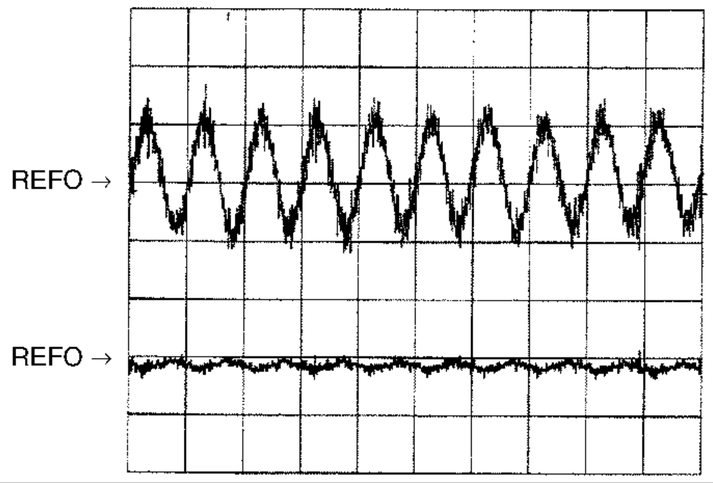
⑲ CH1: R OUT 1V/div.
⑳ CH2: L OUT 1V/div. 0.2ms/div.
Normal mode: Play (1kHz 0dB)



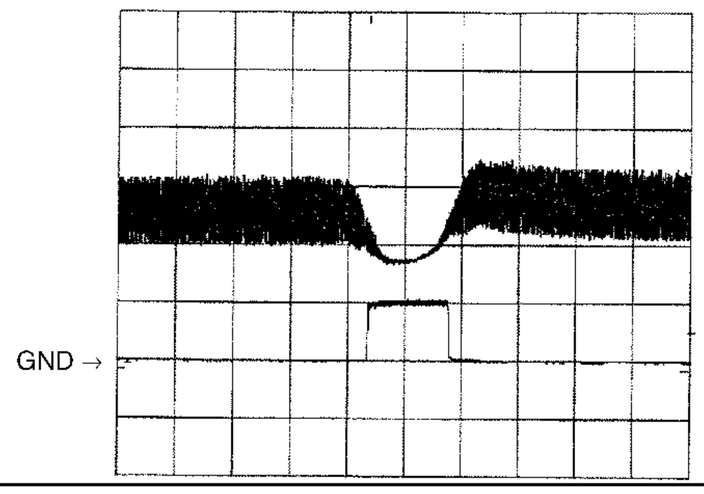
⑥ CH1: FEY 0.2V/div.
③ CH2: FIN 0.5V/div. 1ms/div.
Normal mode: During AGC



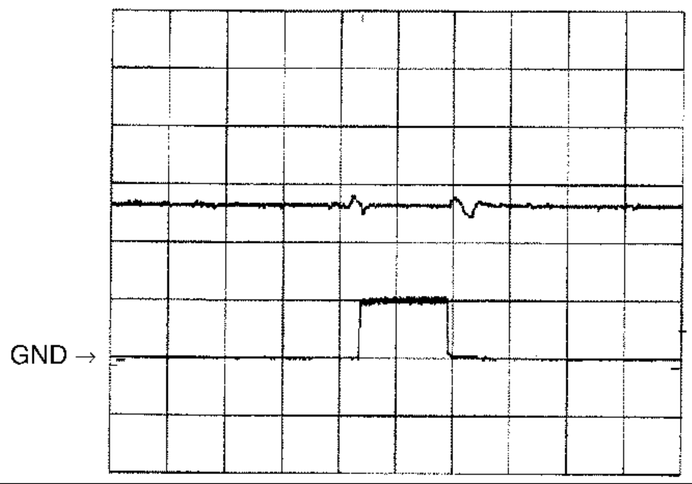
⑧ CH1: TEY 0.2V/div.
⑨ CH2: TIN 0.5V/div. 1ms/div.



① CH1: RFO 1V/div.
㉑ CH2: HOLD 5V/div. 0.5ms/div.
Normal mode: The defect part passes 800µm

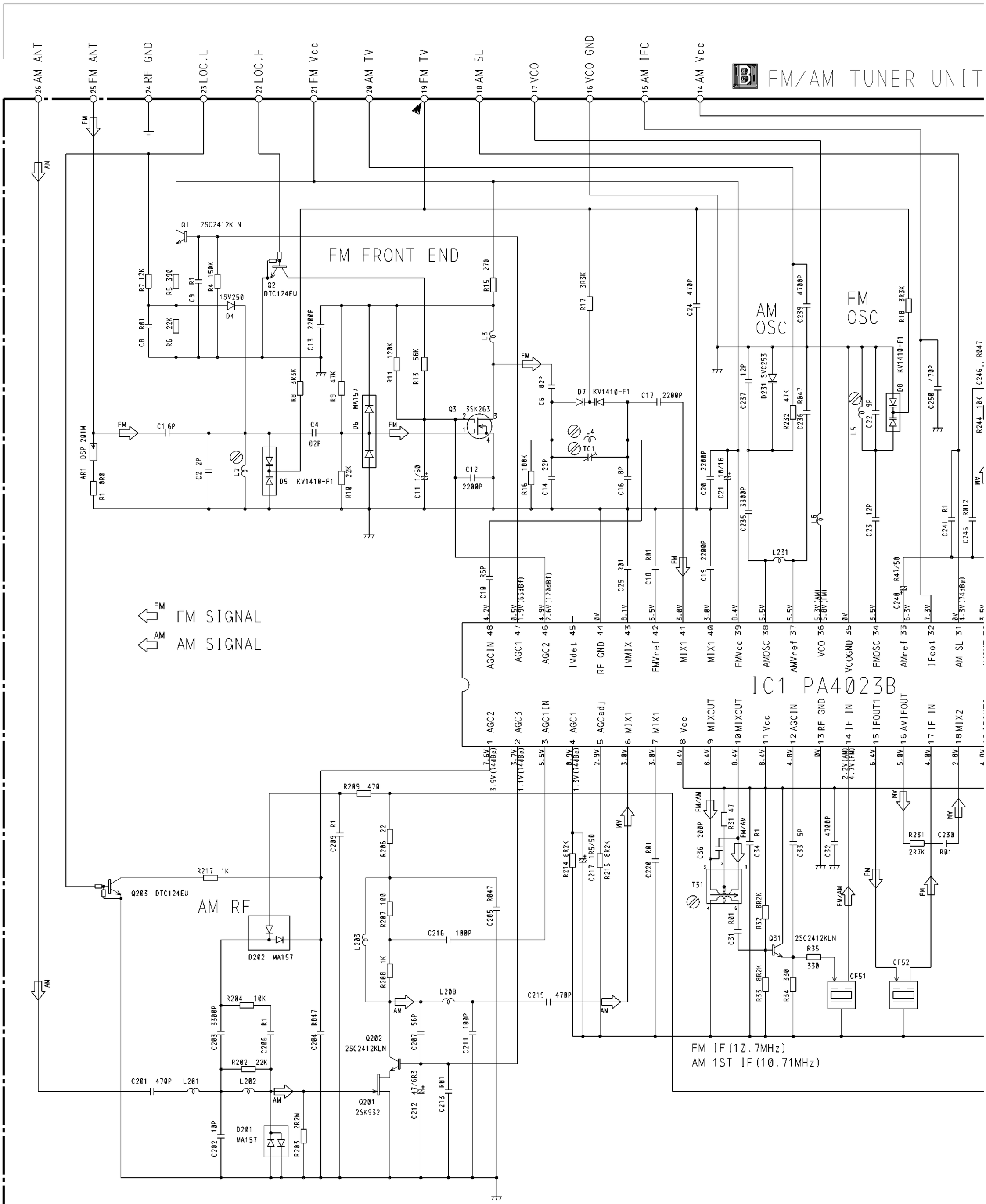


③ CH1: FIN 1V/div.
㉑ CH2: HOLD 5V/div. 0.5ms/div.
Normal mode: The defect part passes 800µm



3.3 FM/AM TUNER UNIT

B FM/AM TUNER UNIT



SIDE A

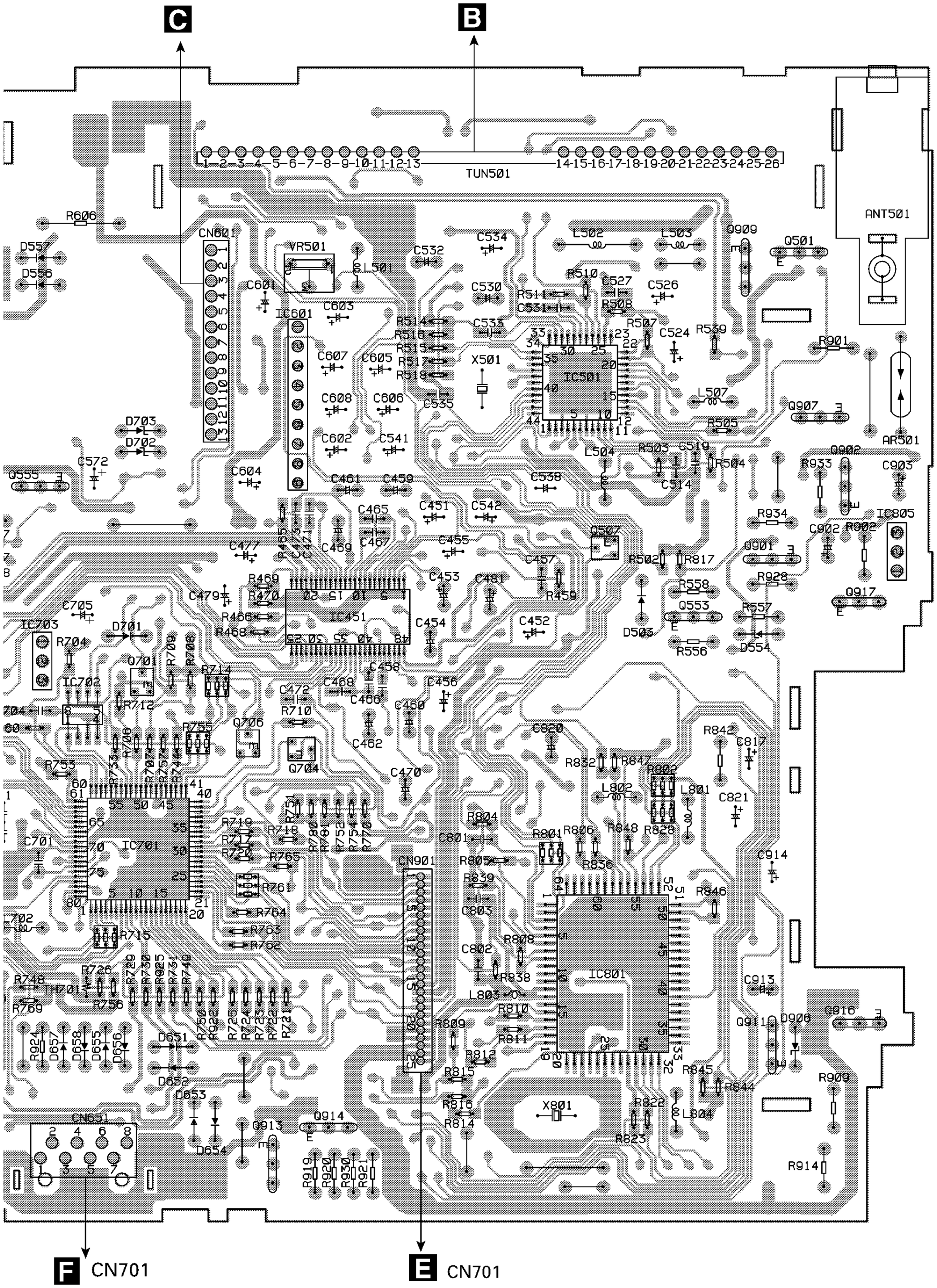

C
B
1-2-3-4-5-6-7-8-9-10-11-12-13
TUN501
14-15-16-17-18-19-20-21-22-23-24-25-26
ANT501
R606
CN601
D557
D556
VR501
L501
C601
C603
IC601
C534
C532
C530
L502
L503
Q909
Q501
R510
C527
C526
R511
C531
R508
R507
C524
R539
R901
R514
R516
R515
R517
R518
C533
X501
C607
C605
C608
C606
C535
IC501
L507
Q907
AR501
D703
D702
C572
R505
C504
R503
C519
Q902
R933
C903
Q555
C604
C461
C459
C538
L504
C514
R504
C465
C451
C542
R934
IC805
C902
R902
Q507
C477
C469
C467
C455
R502
R817
Q901
R928
C457
R469
C453
C481
R459
R558
Q553
R557
C479
R470
R466
R468
IC451
C454
D503
R556
D554
Q917
C705
IC703
D701
R704
C458
C456
C468
C472
C466
C460
R710
Q701
R709
R708
R714
IC702
R712
C462
C820
R842
C817
R706
R755
Q706
R733
R707
R757
R744
R753
Q704
R832
R847
C470
R802
L802
L801
C821
R751
R718
R780
R781
R752
R754
R770
R804
R801
R806
R848
R828
C801
R836
C914
R710
R717
R720
R765
R805
CN901
R761
R839
R846
C803
R764
R763
R762
R715
C802
R808
R838
C913
R726
R729
R730
R925
R731
R749
R748
TH701
R756
L803
R810
Q911
D906
Q916
R769
R809
R811
R812
R924
D657
D658
D655
D656
D651
R750
R923
R725
R724
R723
R722
R721
C705
R815
R845
R844
R909
D652
D653
R816
X801
R822
L804
R814
R823
R914
CN651
2 4 6 8
1 3 5 7
D654
Q913
Q914
R919
R920
R930
R921
F CN701
E CN701

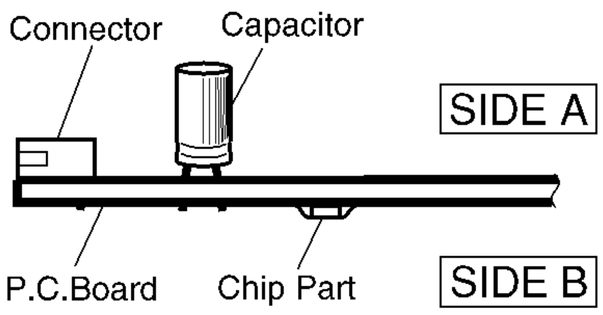
Fig. 12

4. PCB CONNECTION DIAGRAM

4.1 TUNER AMP PCB

NOTE FOR PCB DIAGRAMS

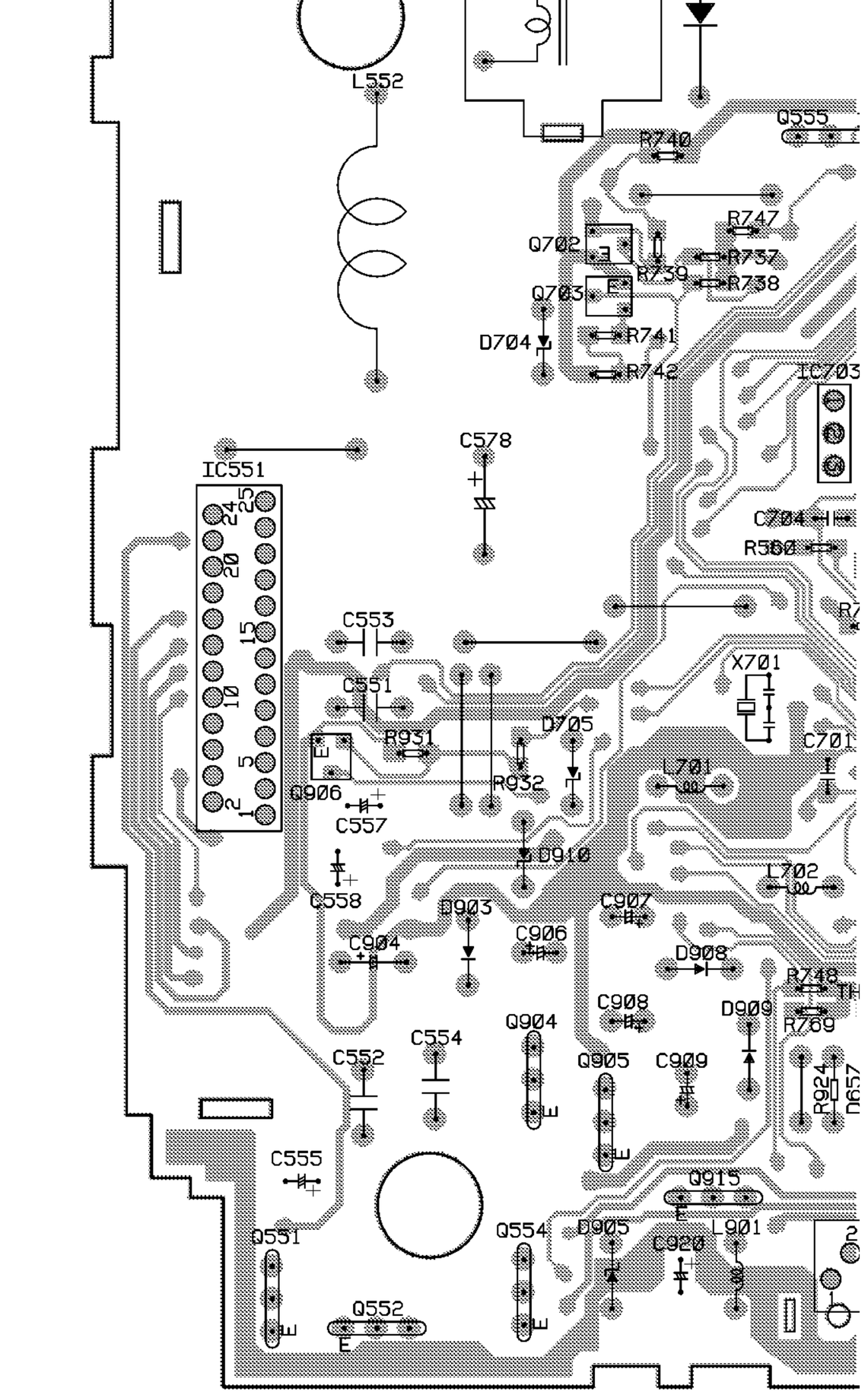
1. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams



A TUNER AMP PCB

IC, Q | ADJ

Q909
Q501
IC601
IC501
Q907
Q902
Q555
IC805
Q507
Q901
Q702
Q703 Q917
Q553
IC703 IC451
Q701
IC551 IC702
Q706
Q704
IC701
Q906
IC801
Q904 Q916
Q911
Q905
Q915
Q914
Q551 Q554 Q913
Q552



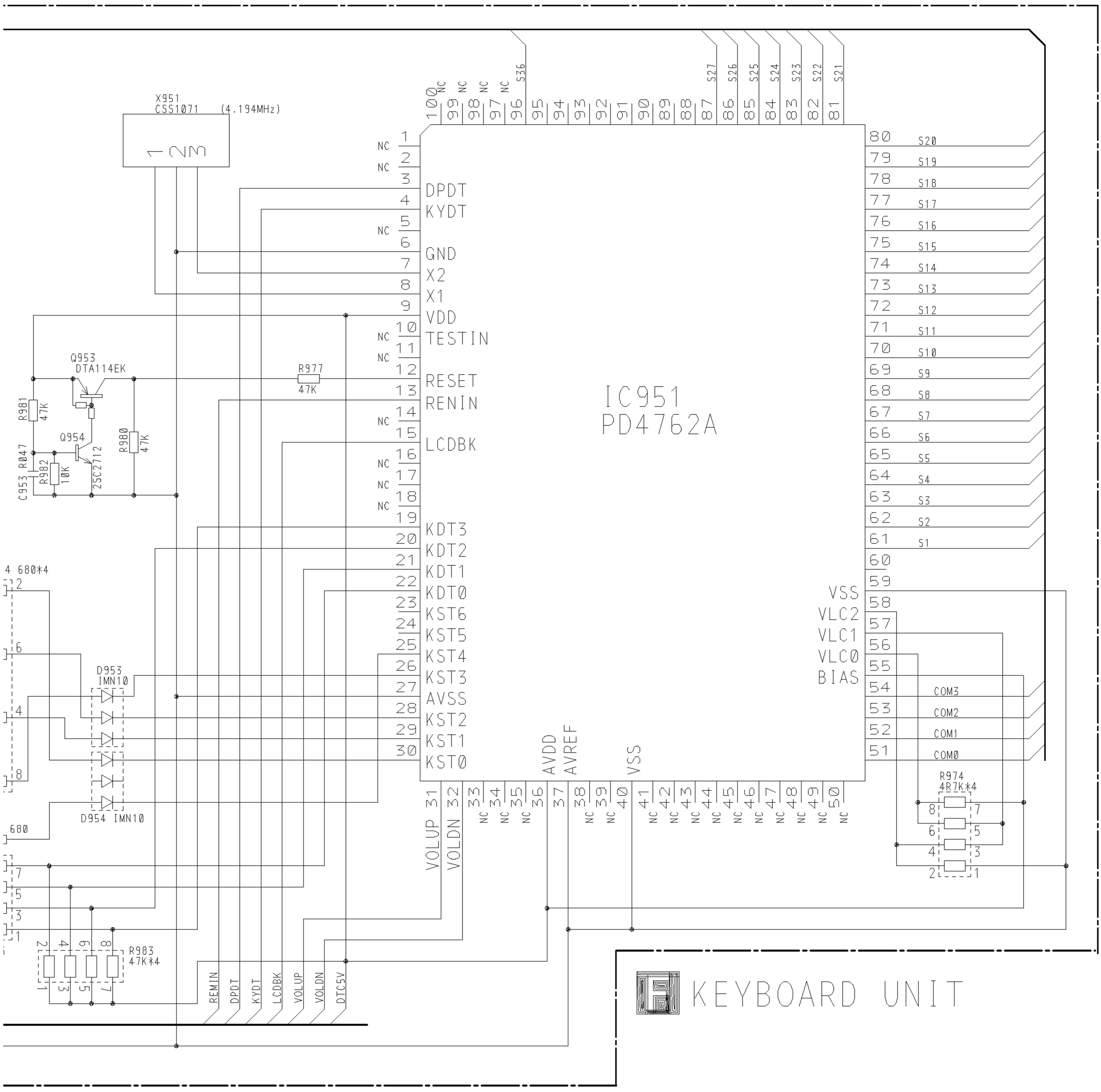
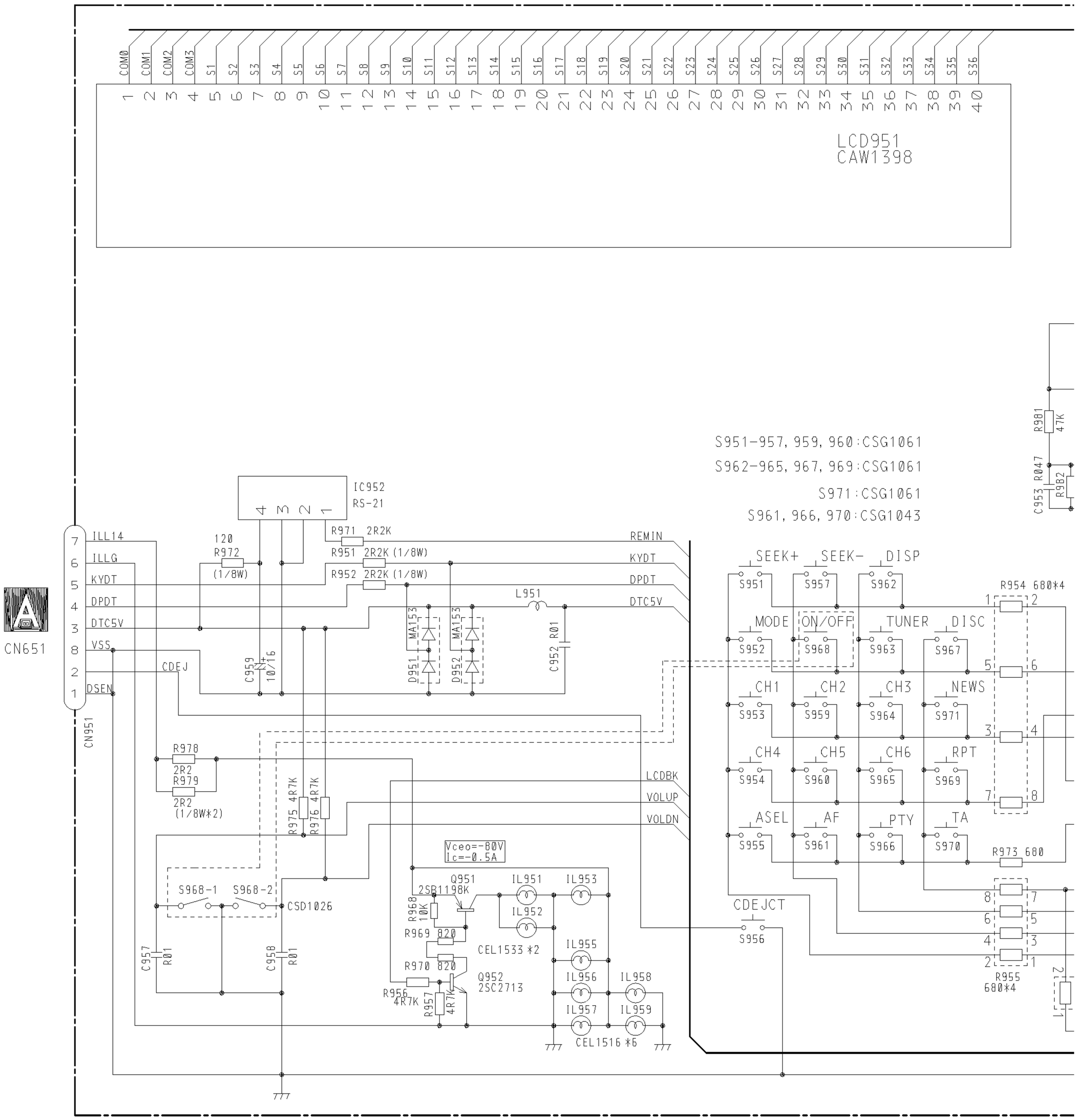

X951
CSS1071 (4.194MHz)
IC951
PD4762A
Q953
DTA114EK
Q954
2SC2712
R977
47K
R981
47K
R980
47K
R982
10K
C953 R047
D953
IMN10
D954 IMN10
R983
47K*4
R974
4R7K*4
4 680*4
680
NC
DPDT
KYDT
GND
X2
X1
VDD
TESTIN
RESET
RENIN
LCDBK
KDT3
KDT2
KDT1
KDT0
KST6
KST5
KST4
KST3
AVSS
KST2
KST1
KST0
VOLUP
VOLDN
AVDD
AVREF
VSS
VSS
VLC2
VLC1
VLC0
BIAS
COM3
COM2
COM1
COM0
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
S13
S14
S15
S16
S17
S18
S19
S20
S21
S22
S23
S24
S25
S26
S27
S36
REMIN
DPDT
KYDT
LCDBK
VOLUP
VOLDN
DTC5V
KEYBOARD UNIT

Fig. 11

3.4 KEYBOARD UNIT



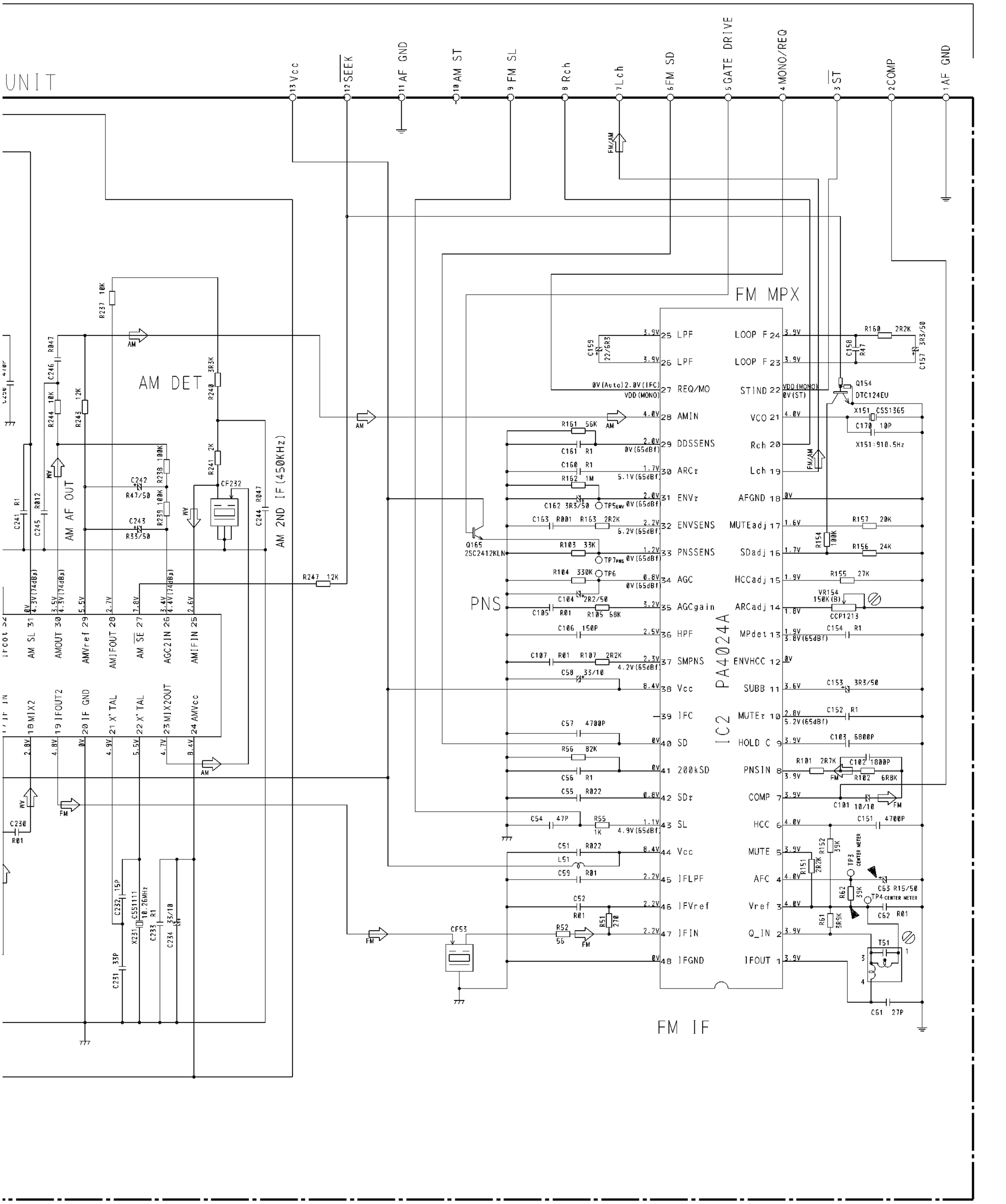
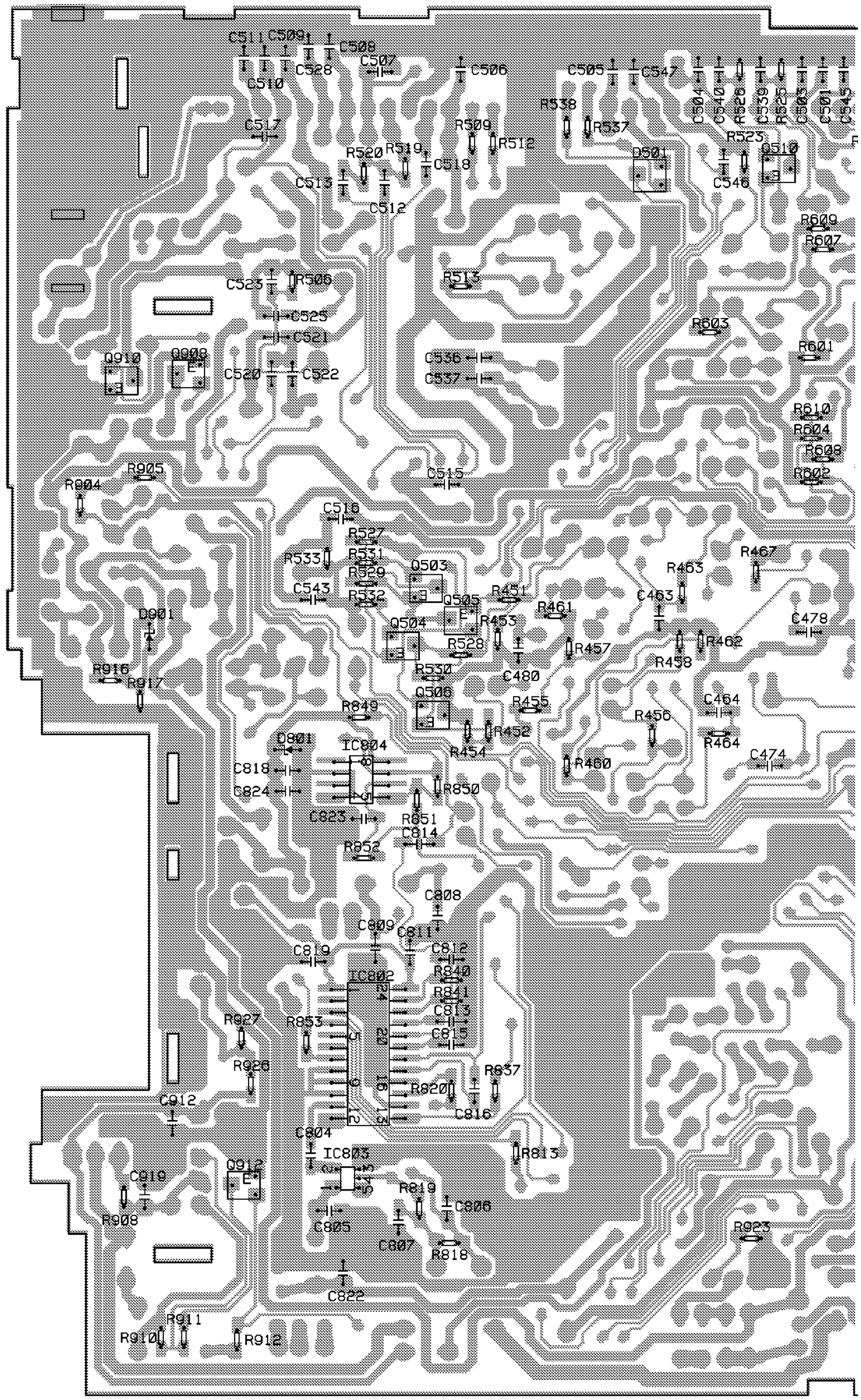

UNIT
13 Vcc
12 SEEK
11 AF GND
10 AM ST
9 FM SL
8 Rch
7 Lch
6 FM SD
5 GATE DRIVE
4 MONO/REQ
3 ST
2 COMP
1 AF GND
FM/AM
AM DET
AM AF OUT
AM 2ND IF (450KHz)
AM
FM
MW
R237 10K
R247 12K
CF232
CF53
PNS
FM MPX
IC2 PA4024A
25 LPF
26 LPF
27 REQ/MO
28 AMIN
29 DDSSENS
30 ARCτ
31 ENVτ
32 ENVSENS
33 PNSSENS
34 AGC
35 AGCgain
36 HPF
37 SMPNS
38 Vcc
39 IFC
40 SD
41 200kSD
42 SDτ
43 SL
44 Vcc
45 IFLPF
46 IFVref
47 IFIN
48 IFGND
LOOP F 24
LOOP F 23
STIND 22
VCO 21
Rch 20
Lch 19
AFGND 18
MUTEadj 17
SDadj 16
HCCadj 15
ARCadj 14
MPdet 13
ENVHCC 12
SUBB 11
MUTEτ 10
HOLD C 9
PNSIN 8
COMP 7
HCC 6
MUTE 5
AFC 4
Vref 3
Q_IN 2
IFOUT 1
Q154 DTC124EU
X151 CSS1365
X151:918.5Hz
VR154 150K(B)
CCP1213
T51
TP3 CENTER METER
TP4 CENTER METER
FM IF

Fig. 10

A TUNER AMP PCB



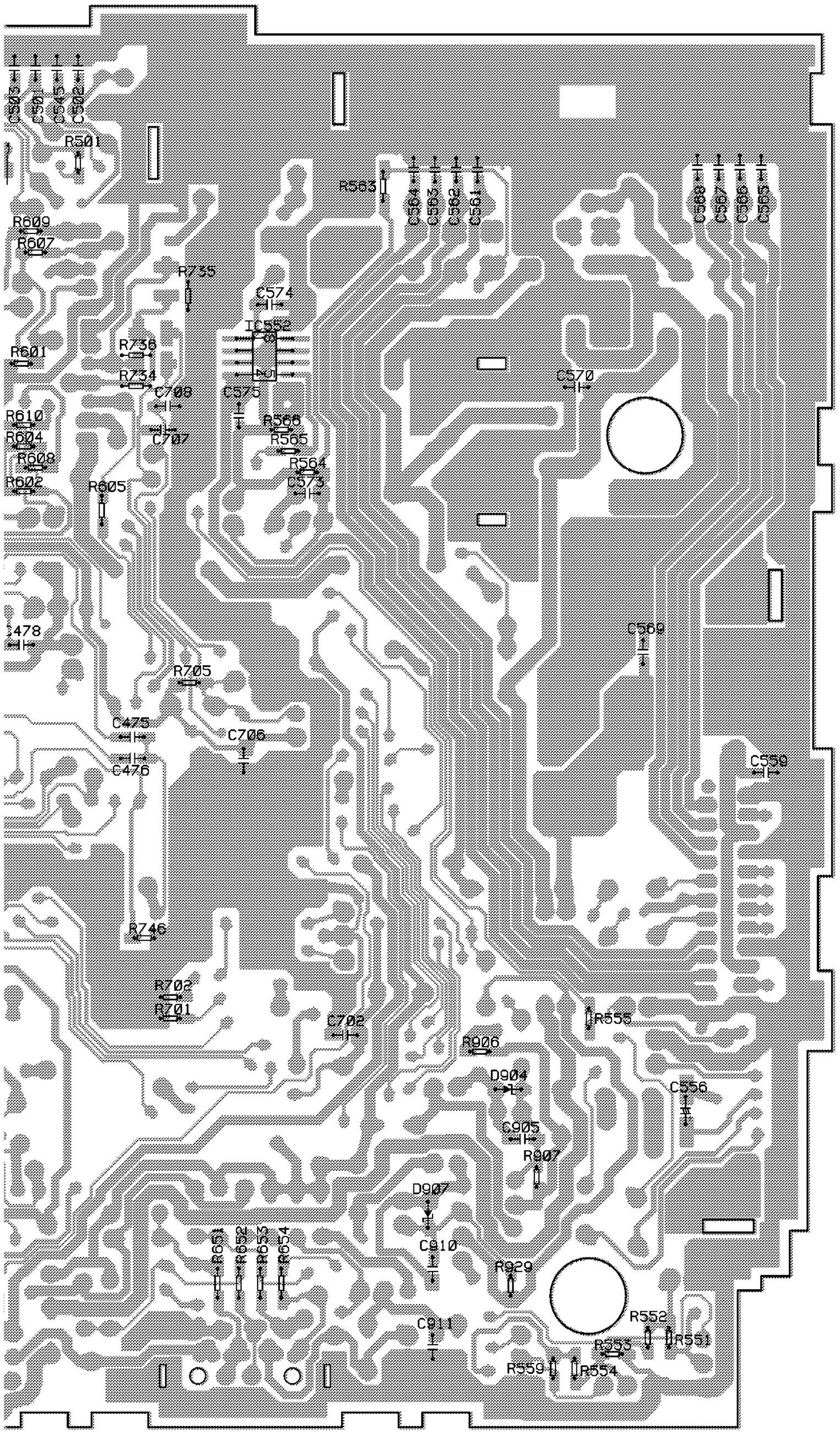

C503
C501
C545
C502
R501
R609
R607
R735
C574
IC552
R601
R736
R734
C708
C575
R610
R604
R608
R602
R605
R566
R565
R564
C573
C707
R563
C564
C563
C562
C561
C568
C567
C566
C565
C570
C569
C478
R705
C475
C706
C476
R746
R702
R701
C702
R906
D904
C905
R907
D907
C910
R929
C911
R555
C556
C559
R651
R652
R653
R654
R552
R553
R551
R559
R554
SIDE B
IC, Q
Q510
IC552
Q908
Q910
Q503
Q505
Q504
Q506
IC804
IC802
IC803
Q912

Fig. 13

4.2 FM/AM TUNER UNIT

SIDE A

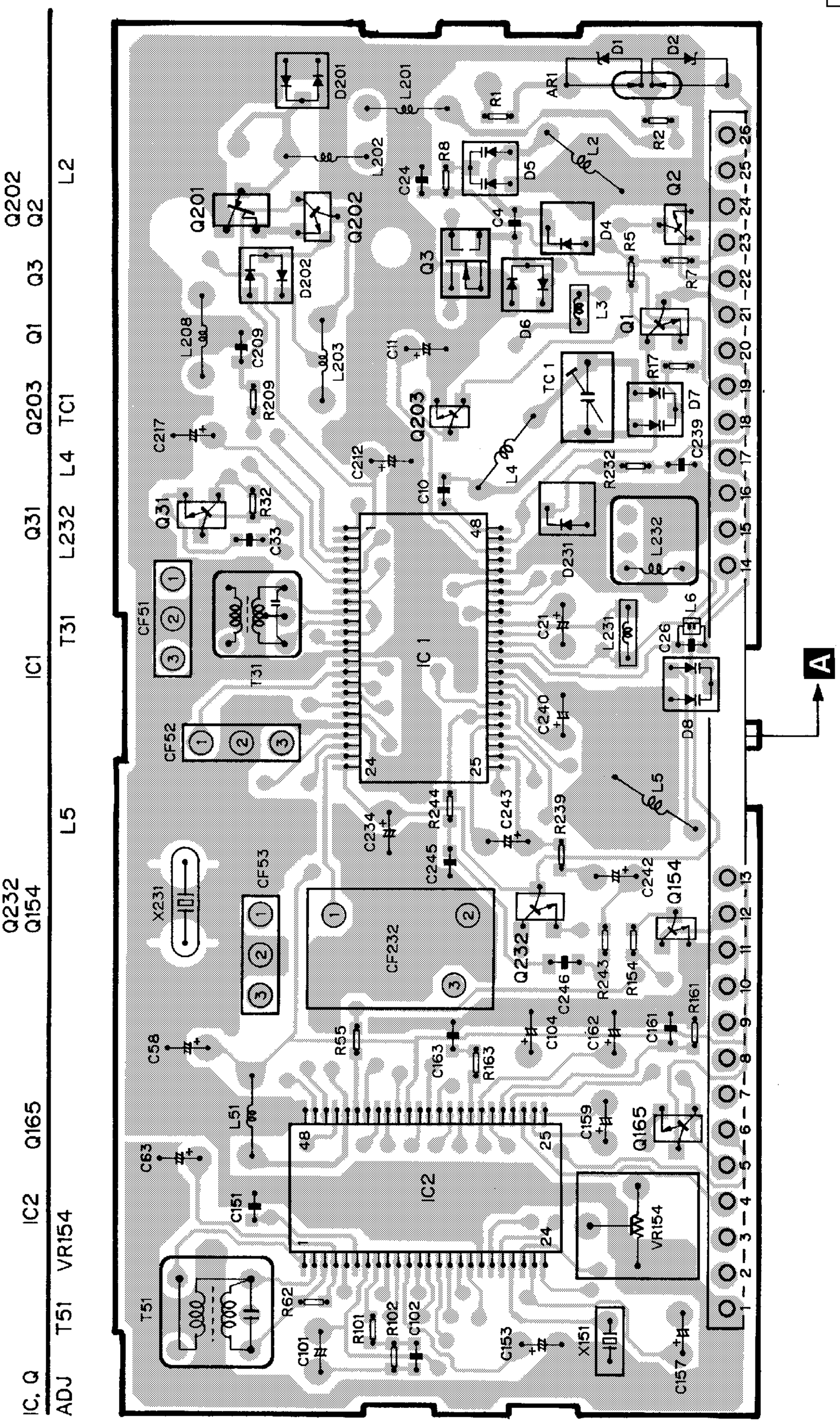


Fig. 14

B

SIDE B

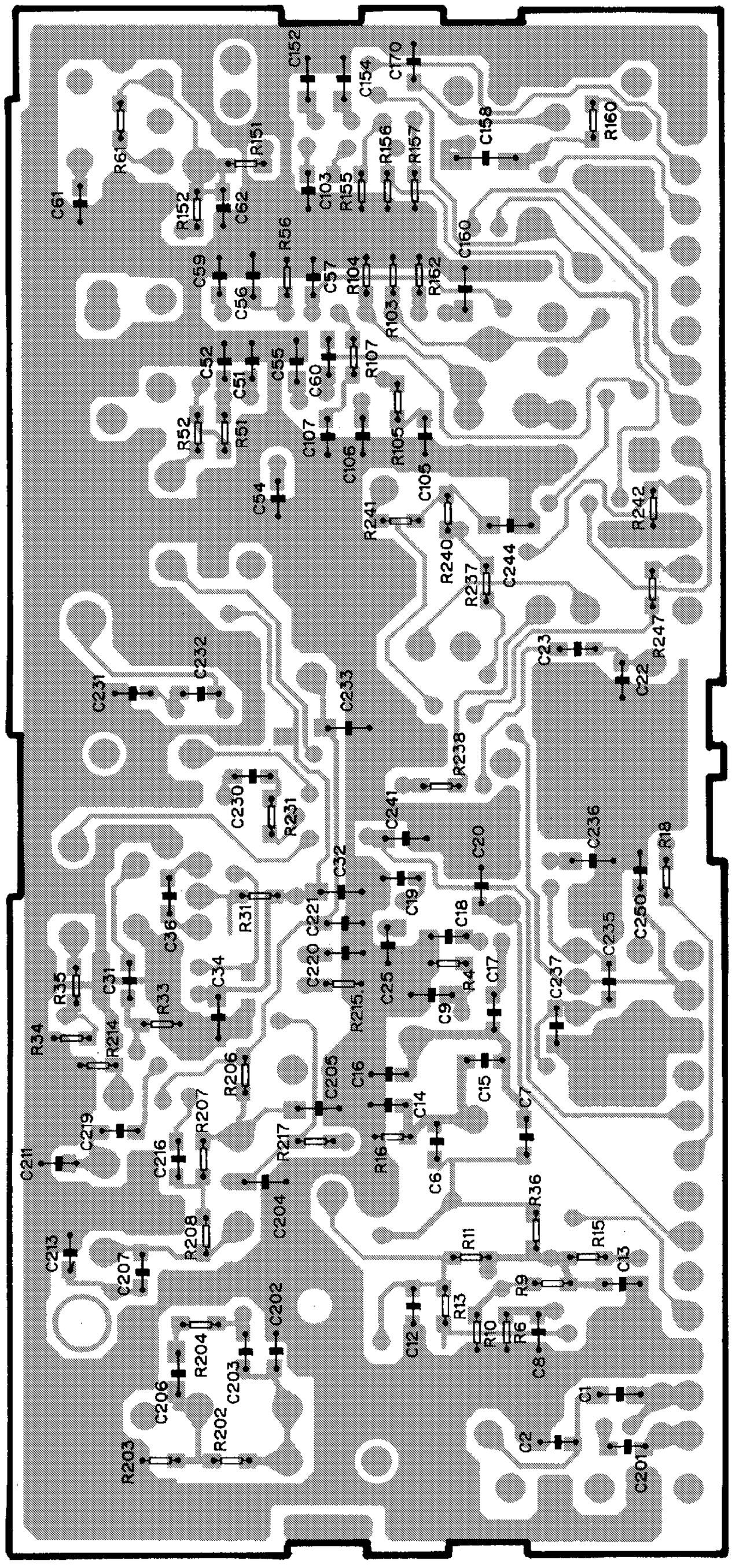

B FM/AM TUNER UNIT
C152
C154
C170
C158
R160
R61
R151
R156
R157
C61
R152
C62
C103
R155
R56
C160
C59
C56
C57
R104
R162
R103
C52
C51
C55
C60
R107
R52
R51
C107
C106
R105
C105
C54
R241
R240
R237
C244
R242
R247
C23
C22
C231
C232
C233
R238
C230
R231
C241
C236
R18
C32
C221
C19
C20
R31
C36
C34
C220
C18
C25
C17
R35
C31
R33
R34
R214
R215
R4
C9
C15
C7
C205
C16
C14
R206
R207
C219
C216
R217
C211
C213
C207
R208
C204
R16
C6
R36
R11
R15
C13
R9
C12
R13
R10
R6
C8
C1
C206
R204
C203
C202
R202
R203
C2
C201
C235
C237
C250

Fig. 15

4.3 KEYBOARD UNIT

SIDE A

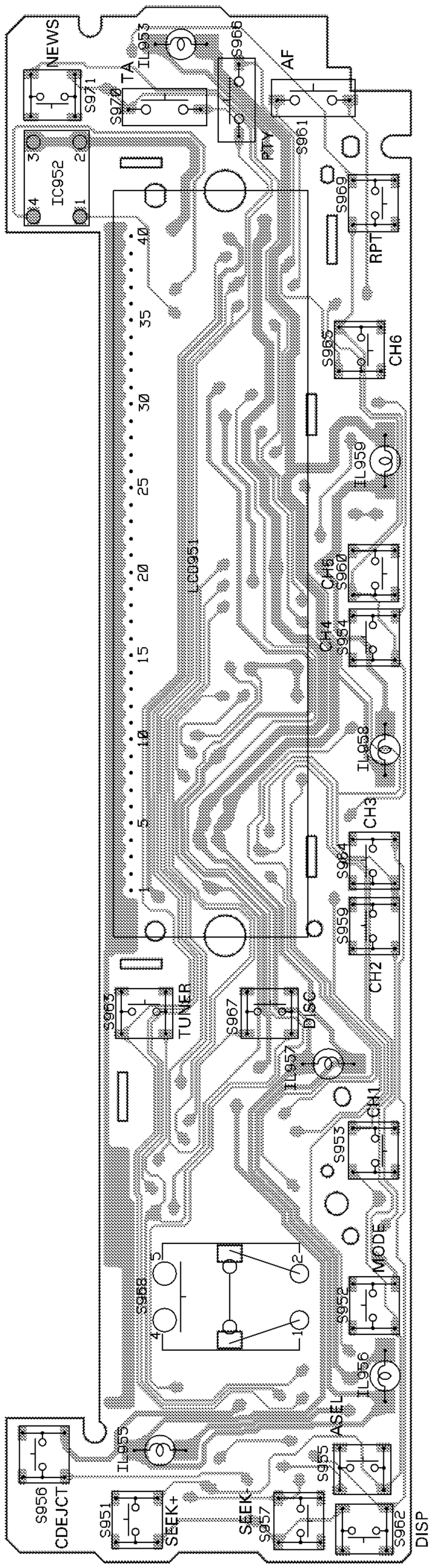


Fig. 16

5. ELECTRICAL PARTS LIST

NOTE:

● Parts whose parts numbers are omitted are subject to being not supplied.

● The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○J,RS1/○○S○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

B Unit Number : CWE1416
Unit Name : FM/AM Tuner Unit

MISCELLANEOUS

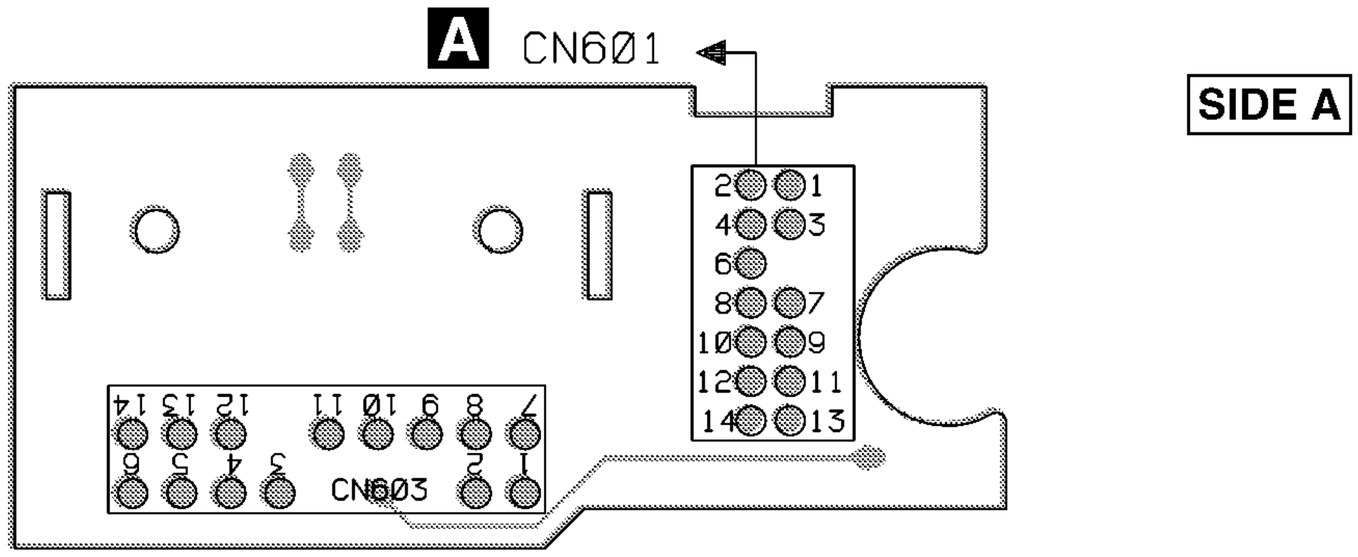
=====Circuit Symbol and No.		===Part Name	Part No.
IC	1	IC	PA4023B
IC	2	IC	PA4024A
Q	1	Transistor	2SC2412KLN
Q	2	Transistor	DTC124EU
Q	3	FET	3SK263
Q	31	Transistor	2SC2412KLN
Q	154	Transistor	DTC124EU
Q	165	Transistor	2SC2412KLN
Q	201	FET	2SK932
Q	202	Transistor	2SC2412KLN
Q	203	Transistor	DTC124EU
D	4	Diode	1SV250
D	5	Diode	KV1410-F1
D	6	Diode	MA157
D	7	Diode	KV1410-F1
D	8	Diode	KV1410-F1
D	201	Diode	MA157
D	202	Diode	MA157
D	231	Diode	SVC253
L	2	Coil	CTC1108
L	3	Inductor	LCTB2R2K2125
L	4	Coil	CTC1108
L	5	Coil	CTC1107
L	6	Inductor	LCTBR15K1608
L	51	Ferri-Inductor	LAU150K
L	201	Ferri-Inductor	LAU4R7K
L	202	Ferri-Inductor	LAU330K
L	203	Inductor	CTF1287
L	208	Inductor	LAU121K
L	231	Inductor	LCTA3R3J3225
T	31	Coil	CTE1116
T	51	Coil	CTC1136
TC	1		CCL1038
CF	51	Ceramic Filter	CTF1292
CF	52	Ceramic Filter	CTF1292
CF	53	Ceramic Filter	CTF1292
CF	232	Ceramic Filter	CTF1348
X	151	Resonator	CSS1365
X	231	Crystal Resonator 10.26MHz	CSS1111
VR	154	Semi-fixed 150kΩ(B)	CCP1213
AR	1		DSP-201M

RESISTORS

=====Circuit Symbol and No.		===Part Name	Part No.
R	1		RS1/16S0R0J
R	4		RS1/16S154J
R	5		RS1/16S391J
R	6		RS1/16S223J
R	7		RS1/16S123J
R	8		RS1/16S332J
R	9		RS1/16S473J
R	10		RS1/16S223J
R	11		RS1/16S124J
R	13		RS1/16S563J
R	15		RS1/16S271J
R	16		RS1/16S104J
R	17		RS1/16S332J
R	18		RS1/16S332J
R	31		RS1/16S470J
R	32		RS1/16S822J
R	33		RS1/16S822J
R	34		RS1/16S331J
R	35		RS1/16S331J
R	51		RS1/16S271J
R	52		RS1/16S560J
R	55		RS1/16S102J
R	56		RS1/16S823J
R	61		RS1/16S392J
R	62		RS1/16S393J
R	101		RS1/16S272J
R	102		RS1/16S682J
R	103		RS1/16S333J
R	104		RS1/16S334J
R	105		RS1/16S683J
R	107		RS1/16S222J
R	151		RS1/16S222J
R	152		RS1/16S393J
R	154		RS1/16S104J
R	155		RS1/16S273J
R	156		RS1/16S243J
R	157		RS1/16S203J
R	160		RS1/16S222J
R	161		RS1/16S563J
R	162		RS1/16S105J
R	163		RS1/16S222J
R	202		RS1/16S223J
R	203		RS1/16S225J
R	204		RS1/16S103J
R	206		RS1/16S220J
R	207		RS1/16S101J
R	208		RS1/16S102J
R	209		RS1/16S471J
R	214		RS1/16S822J
R	215		RS1/16S822J
R	217		RS1/16S102J
R	231		RS1/16S272J
R	232		RS1/16S473J
R	237		RS1/16S103J
R	238		RS1/16S104J
R	239		RS1/16S104J
R	240		RS1/16S332J
R	241		RS1/16S202J
R	243		RS1/16S123J
R	244		RS1/16S103J
R	247		RS1/16S123J

4.5 CONNECTOR PCB

C CONNECTOR PCB



C CONNECTOR PCB

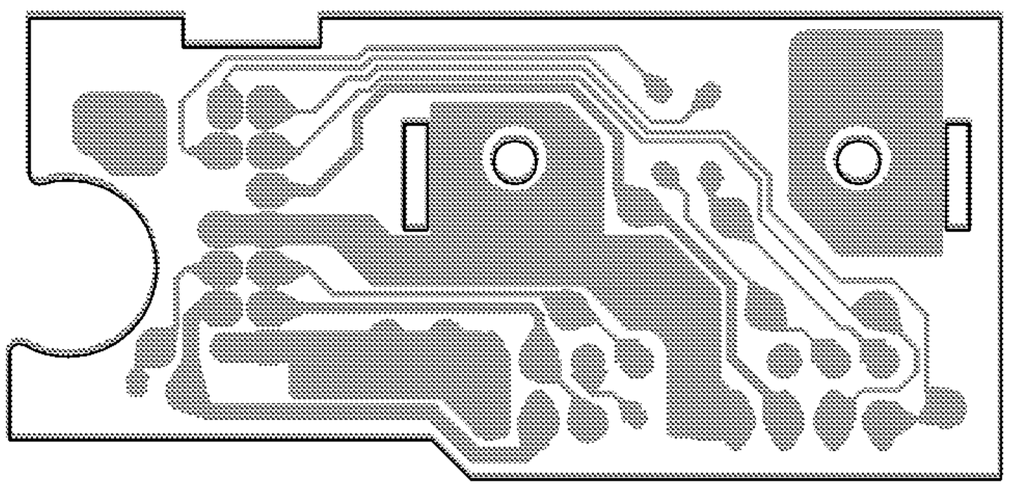
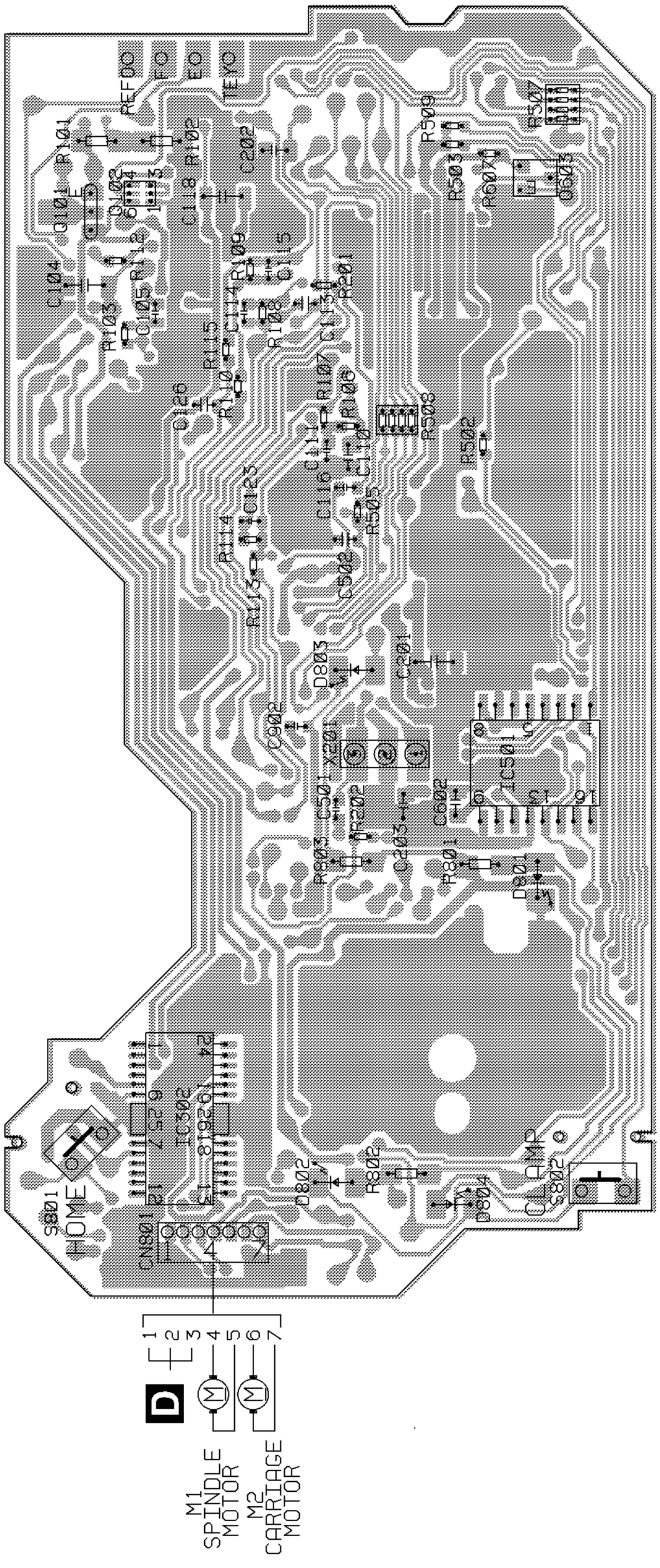


Fig. 20

SIDE B


CONTROL UNIT
M1
SPINDLE
MOTOR
M2
CARRIAGE
MOTOR
HOME
CN801
IC302
IC501
X201
S801
S802
D801
D802
D803
R101
R102
R103
R104
R105
R106
R107
R108
R109
R110
R113
R114
R115
R201
R202
R301
R302
R303
R502
R503
R504
R505
R506
R507
R508
C104
C105
C106
C107
C108
C109
C110
C111
C112
C113
C114
C115
C116
C117
C118
C119
C120
C121
C122
C123
C126
C201
C202
C203
C501
C502
C601
C602
Q101
Q102
Q103
Q104
Q105
Q106
Q107
Q108
Q109
Q110
Q111
Q112
Q113
Q114
Q115
Q116
Q117
Q118
Q119
Q120
Q121
Q122
Q123
Q124
Q125
Q126
Q127
Q128
Q129
Q130
Q131
Q132
Q133
Q134
Q135
Q136
Q137
Q138
Q139
Q140

4.4 CONTROL UNIT , DETECTOR PCB

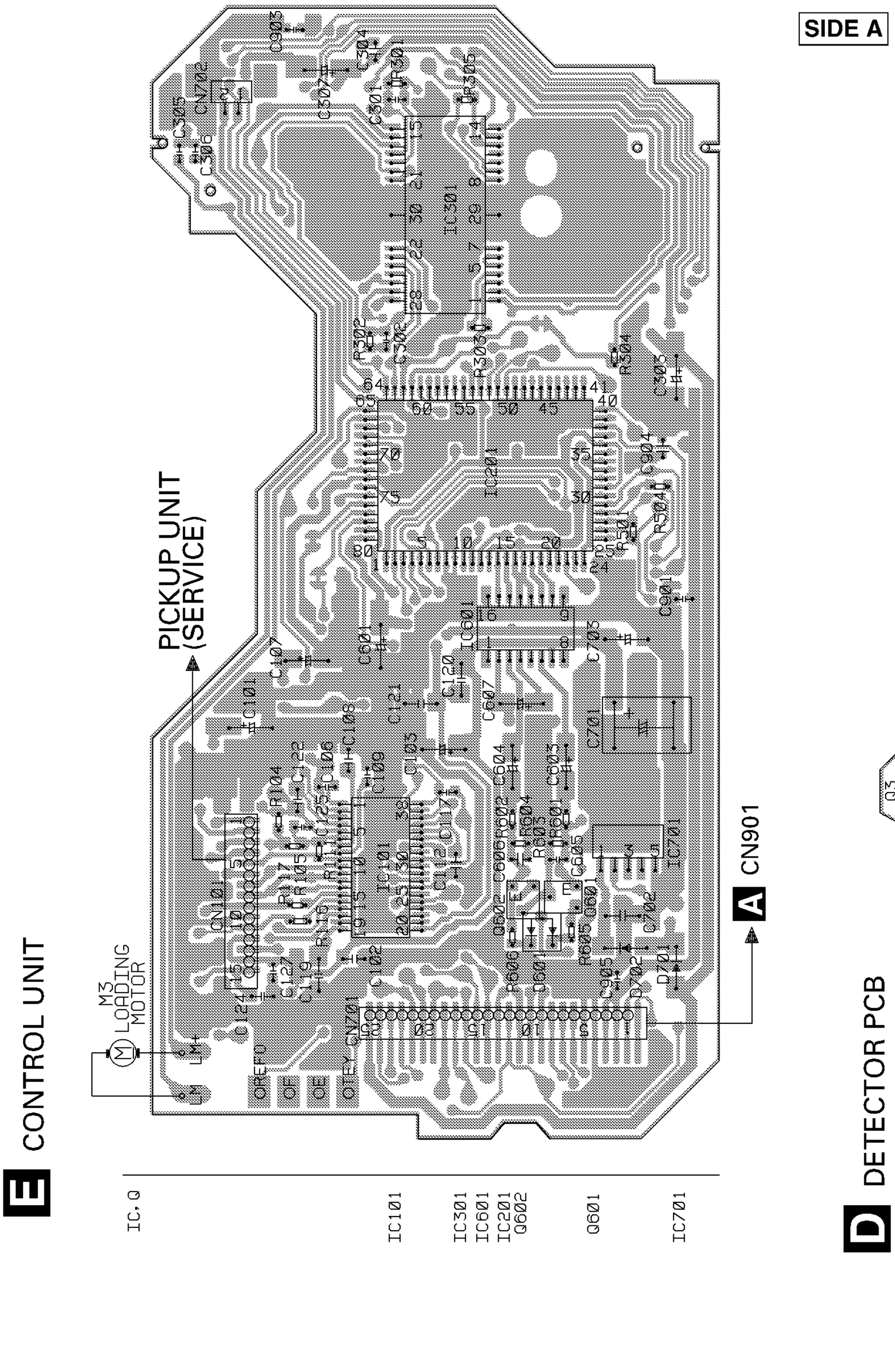


Fig. 18

F KEYBOARD UNIT

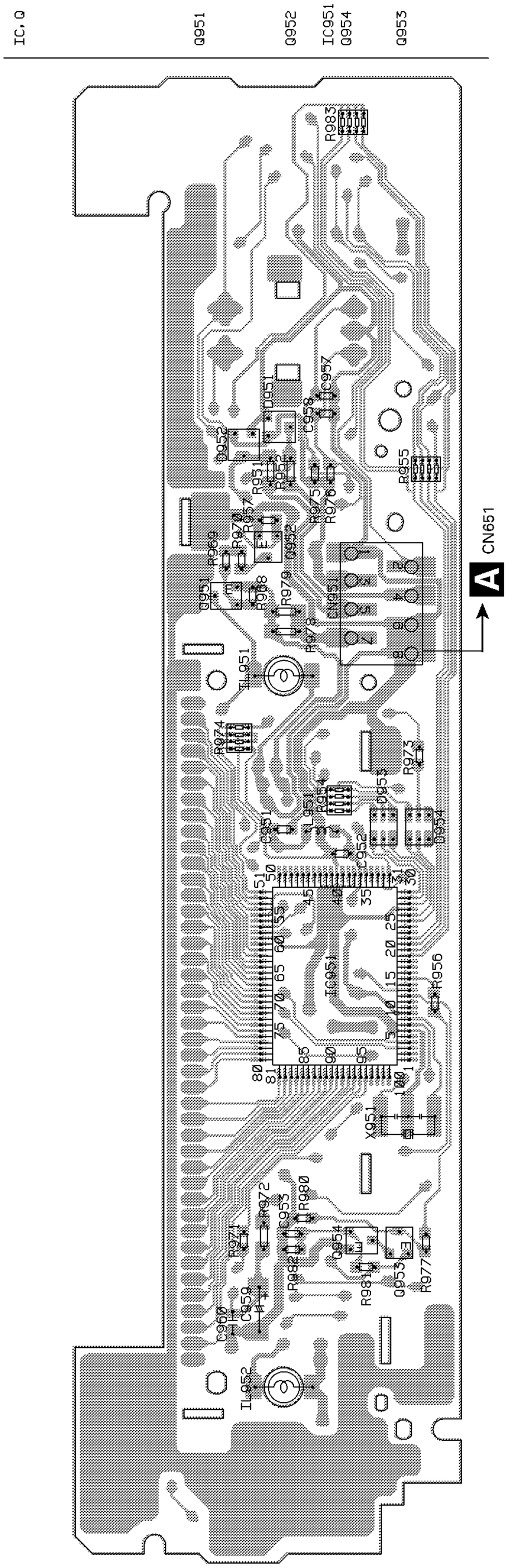


Fig. 17

Circuit Symbol and No.		Part Name	Part No.
CAPACITORS			
C	1		CCSQCH6R0D50
C	2		CCSRCK2R0C50
C	4		CCSRCH820J50
C	6		CCSRCH820J50
C	8		CKSRYB103K25
C	9		CKSQYB104K16
C	10		CCSRCKR50C50
C	11		CEJA1R0M50
C	12		CKSRYB222K50
C	13		CKSRYB222K50
C	14		CCSRCH220J50
C	16		CCSRCH8R0D50
C	17		CKSRYB222K50
C	18		CKSRYB103K25
C	19		CKSRYB222K50
C	20		CKSRYB222K50
C	21		CEJA100M16
C	22		CCSRTH9R0D50
C	23		CCSRTH120J50
C	24		CCSRCH471J50
C	25		CKSRYB103K25
C	31		CKSRYB103K25
C	32		CKSQYB472K50
C	33		CCSRCH5R0C50
C	34		CKSQYB104K16
C	36		CCSRRH201J50
C	51		CKSRYB223K25
C	52		CKSRYB103K25
C	54		CCSRCH470J50
C	55		CKSQYB223K25
C	56		CKSQYB104K16
C	57		CKSRYB472K50
C	58		CEJA330M10
C	59		CKSRYB103K25
C	61		CCSRCH270J50
C	62		CKSRYB103K25
C	63		CEJAR15M50
C	101		CEJANP100M10
C	102		CKSRYB182K50
C	103		CKSRYB682K25
C	104		CEJA2R2M50
C	105		CKSRYB103K25
C	106		CCSRCH151J50
C	107		CKSRYB103K25
C	151		CKSRYB472K50
C	152		CKSQYB104K16
C	153		CEJA3R3M50
C	154		CKSQYB104K16
C	157		CEJA3R3M50
C	158		CKSYB474K16
C	159		CEJA220M6R3
C	160		CKSQYB104K16
C	161		CKSQYB104K16
C	162		CEJA3R3M50
C	163		CKSRYB102K50
C	170		CCSRCH100D50
C	201		CCSRCH471J50
C	202		CCSRCH100D50
C	203		CKSRYB332K50
C	204		CKSQYB473K16
C	205		CKSQYB473K16
C	206		CKSQYB104K16
C	207		CCSRCH560J50
C	209		CKSQYB104K16
C	211		CCSRCH101J50

Circuit Symbol and No.		Part Name	Part No.
C	212		CEJA470M6R3
C	213		CKSRYB103K25
C	216		CCSRCH101J50
C	217		CEJA1R5M50
C	219		CCSRCH471J50
C	220		CKSRYB103K25
C	230		CKSRYB103K25
C	231		CCSRCH330J50
C	232		CCSRCH150J50
C	233		CKSQYB104K16
C	234		CEJA330M10
C	235		CKSRYB332K50
C	236		CKSQYB473K16
C	237		CCSRCH120J50
C	239		CKSRYB472K50
C	240		CEJAR47M50
C	241		CKSQYB104K16
C	242		CEJAR47M50
C	243		CEJAR33M50
C	244		CKSQYB473K16
C	245		CKSRYB123K25
C	246		CKSQYB473K16
C	250		CCSRCH471J50

E Unit Number : CWX2139
Unit Name : Control Unit

MISCELLANEOUS

IC	101	IC	UPC2572GS
IC	201	IC	UPD63702GF
IC	301	IC	XLA6997FM
IC	302	IC	BA6285FP
IC	601	IC	TA2063F
IC	701	IC	PQ05TZ51
Q	101	Transistor	2SD1664
Q	102	Transistor	UMD2N
Q	601	Transistor	2SD1781K
Q	602	Transistor	2SD1781K
Q	603	Transistor	2SB709A
D	601	Diode	MA151WA
D	701	Diode	1SR154-400
D	702	Diode	1SR154-400
D	801		CL200IRX
D	802		CL200IRX
D	803		CL200IRX
X	201	Ceramic Resonator 16.93MHz	CSS1363
S	801	Switch(Home)	CSN1028
S	802	Switch(Clamp)	CSN1028

RESISTORS

R	101		RS1/8S100J
R	102		RS1/8S120J
R	103		RS1/16S102J
R	104		RS1/16S822J
R	105		RS1/16S682J
R	106		RS1/16S183J
R	107		RS1/16S822J
R	108		RS1/16S333J
R	109		RS1/16S683J
R	110		RS1/16S134J
R	111		RS1/16S273J
R	112		RS1/16S222J
R	113		RS1/16S103J
R	114		RS1/16S103J
R	115		RS1/16S102J
R	116		RS1/16S163J
R	117		RS1/16S163J
R	201		RS1/16S104J
R	202		RS1/16S473J
R	304		RS1/16S0R0J

=====Circuit Symbol and No.		===Part Name	Part No.
R	501		RS1/16S0R0J
R	505		RS1/16S102J
R	507		RA4C102J
R	508		RA4C681J
R	601		RS1/16S102J
R	602		RS1/16S102J
R	603		RS1/16S223J
R	604		RS1/16S223J
R	605		RS1/16S162J
R	606		RS1/16S162J
R	607		RS1/16S103J
R	801		RS1/8S751J
R	802		RS1/8S751J
R	803		RS1/8S751J
CAPACITORS			
C	101		CEV101M6R3
C	102		CKSQYB104K16
C	103		CEV470M6R3
C	104		CKSYB334K16
C	105		CCSRCH330J50
C	106		CKSRYB103K25
C	107		CEV4R7M35
C	108		CKSQYB273K50
C	109		CCSRCH101J50
C	110		CKSQYB104K16
C	111		CKSRYB332K50
C	112		CKSQYB473K16
C	113		CKSRYB103K25
C	114		CKSRYB391K50
C	115		CCSRCH121J50
C	116		CKSRYB682K25
C	117		CKSRYB333K16
C	118		CKSYB334K16
C	119		CKSYB334K16
C	120		CKSYB334K16
C	121		CKSYB334K16
C	122		CKSQYB104K16
C	123		CKSRYB472K50
C	124		CKSQYB104K16
C	125		CCSRCH6R0D50
C	126		CKSRYB153K25
C	127		CCSRCH102J25
C	201		CKSYB334K16
C	202		CKSQYB104K16
C	203		CKSQYB104K16
C	303		CEV470M16
C	304		CKSRYB103K25
C	305		CKSRYB103K25
C	306		CKSRYB103K25
C	307		CEV100M25
C	502		CKSRYB471K50
C	601		CEV101M6R3
C	602		CKSQYB104K16
C	603		CEV4R7M35
C	604		CEV4R7M35
C	605		CKSRYB152K50
C	606		CKSRYB152K50
C	607		CEV220M6R3
C	701	22µF/6.3V	CCH1233
C	702		CKSYB334K16
C	703		CEV101M6R3
C	901		CCSRCH471J50
C	902		CCSRCH271J50
C	903		CCSRCH471J50
C	904		CCSRCH101J50

=====Circuit Symbol and No.		===Part Name	Part No.

Tuner Amp Unit

Consisits of

·Tuner Amp PCB
·Connector PCB

A C Unit Number : CWM5031
Unit Name : Tuner Amp Unit

MISCELLANEOUS

IC	451	IC	SN761025DL
IC	501	IC	PM2007A
IC	551	IC	TDA7384A
IC	552	IC	PML001A
IC	601	IC	TA2050S
IC	701	IC	PD4763A
IC	702	IC	CA0008AM
IC	703	IC	S-80734AN
IC	801	IC	PD6223A
IC	802	IC	PMW001B
IC	803	IC	SC14SU69F
IC	804	IC	NJM2903M
IC	805	IC	M5237L
Q	501	Transistor	2SC2458
Q	503	Transistor	2SC2712
Q	504	Transistor	2SC2712
Q	505	Transistor	DTC143TK
Q	506	Transistor	DTC143TK
Q	507	Transistor	DTA114EK
Q	510	Transistor	2SC2712
Q	551	Transistor	DTC124ES
Q	552	Transistor	DTC124ES
Q	553	Transistor	2SC2458
Q	554	Transistor	DTC124ES
Q	555	Transistor	2SC2458
Q	701	Transistor	2SC2713
Q	702	Transistor	2SC2712
Q	703	Transistor	2SC2712
Q	704	Transistor	DTA143EK
Q	706	Transistor	DTA124EK
Q	901	Transistor	2SA1429
Q	902	Transistor	2SC2459
Q	904	Transistor	2SD1859
Q	905	Transistor	2SD1859
Q	906	Transistor	2SC2713
Q	907	Transistor	DTB113ZS
Q	908	Transistor	DTC123YK
Q	909	Transistor	DTB113ZS
Q	910	Transistor	DTC123YK
Q	911	Transistor	2SA1049
Q	912	Transistor	2SC2713
Q	913	Transistor	2SA1429
Q	914	Transistor	2SC2459
Q	915	Transistor	2SA1048
Q	916	Transistor	2SD2396
Q	917	Transistor	2SB942A
D	501	Chip Diode	MA151WK
D	503	Diode	1SS133
D	554	Diode	HZS9L(A3)
D	556	Diode	ERA15-02VH
D	557	Diode	ERA15-02VH
D	558	Diode	ERC05-10B
D	559	Diode	ERC05-10B
D	651	Diode	1SS133
D	652	Diode	1SS133
D	653	Diode	1SS133
D	654	Diode	1SS133
D	655	Diode	1SS133
D	656	Diode	1SS133
D	657	Diode	1SS133

=====Circuit Symbol and No.	===	Part Name	Part No.
R	729		RS1/10S102J
R	730		RS1/10S102J
R	731		RS1/10S681J
R	733		RS1/10S392J
R	734		RS1/4S101J
R	735		RS1/4S680J
R	736		RS1/4S101J
R	737		RS1/10S473J
R	738		RS1/10S473J
R	739		RS1/10S104J
R	740		RS1/10S473J
R	741		RS1/10S473J
R	742		RS1/10S473J
R	744		RS1/10S823J
R	746		RS1/10S682J
R	747		RS1/10S473J
R	748		RS1/10S473J
R	749		RS1/10S0R0J
R	750		RS1/10S0R0J
R	751		RS1/10S0R0J
R	752		RS1/10S0R0J
R	753		RS1/10S0R0J
R	754		RS1/10S0R0J
R	755		RA3C681J
R	756		RS1/10S223J
R	757		RS1/10S681J
R	761		RA3C102J
R	762		RS1/10S0R0J
R	763		RS1/10S0R0J
R	764		RS1/10S102J
R	765		RS1/10S103J
R	769		RS1/10S473J
R	770		RS1/10S473J
R	780		RS1/10S473J
R	781		RS1/10S473J
R	801		RA3C681J
R	802		RA3C473J
R	804		RS1/10S222J
R	805		RS1/10S102J
R	806		RS1/10S681J
R	808		RS1/10S102J
R	809		RS1/10S681J
R	810		RS1/10S102J
R	811		RS1/10S102J
R	812		RS1/10S681J
R	813		RS1/10S102J
R	814		RS1/10S681J
R	815		RS1/10S473J
R	816		RS1/10S473J
R	817		RS1/10S562J
R	818		RS1/10S105J
R	819		RS1/10S222J
R	820		RS1/10S102J
R	822		RS1/10S681J
R	823		RS1/10S681J
R	828		RA3C681J
R	832		RS1/10S681J
R	836		RS1/10S681J
R	837		RS1/10S102J
R	838		RS1/10S223J
R	839		RS1/10S223J
R	840		RS1/10S333J
R	841		RS1/10S0R0J
R	842		RD1/4PU121J
R	844		RS1/10S473J
R	845		RS1/10S473J
R	846		RS1/10S473J
R	847		RS1/10S473J
R	848		RS1/10S102J
R	849		RS1/10S562J
R	850		RS1/10S564J
R	851		RS1/10S222J
R	852		RS1/10S222J
R	853		RS1/10S102J
R	901		RD1/4PU222J
R	902		RD1/4PU221J
R	904		RS1/10S103J
R	905		RS1/10S272J
R	906		RS1/10S101J
R	907		RS1/10S203J
R	908		RS1/10S221J
R	909		RD1/4PU101J
R	910		RS1/10S103J
R	911		RS1/10S472J
R	912		RS1/10S103J
R	914		RD1/4PU101J
R	916		RS1/10S473J
R	917		RS1/10S102J
R	919		RD1/4PU103J
R	920		RD1/4PU151J
R	921		RD1/4PU151J
R	922		RS1/10S472J
R	923		RS1/10S103J
R	924		RD1/4PU103J
R	925		RS1/10S332J
R	926		RS1/10S473J
R	927		RS1/10S123J
R	928		RD1/4PU103J
R	929		RS1/10S222J
R	930		RD1/4PU151J
R	931		RS1/10S223J
R	932		RS1/10S223J
R	933		RD1/4PU331J
R	934		RD1/4PU331J

CAPACITORS

C	451		CEJA2R2M50
C	452		CEJA2R2M50
C	453		CEJANP2R2M35
C	454		CEJANP2R2M35
C	455		CEJA2R2M50
C	456		CEJA2R2M50
C	457		CKSQYB103K25
C	458		CKSQYB103K25
C	459		CEJANP100M10
C	460		CEJANP100M10
C	461		CEJANP100M10
C	462		CEJANP100M10
C	463		CKSQYB152K50
C	464		CKSQYB152K50
C	465		CKSQYB183K50
C	466		CKSQYB183K50
C	467		CKSQYB102K50
C	468		CKSQYB102K50
C	469		CEJANP2R2M35
C	470		CEJANP2R2M35
C	471		CKSQYB333K25
C	472		CKSQYB333K25
C	473		CCSQSL101J50
C	474		CCSQSL101J50
C	475		CKSQYB223K25
C	476		CKSQYB223K25
C	477		CEJA100M16
C	478		CKSQYB103K25
C	479		CEJA2R2M50
C	480		CKSQYB103K50
C	481		CEJA470M16
C	501		CKSQYB152K50
C	503		CKSQYB223K25
C	506		CKSQYB102K50
C	507		CKSQYB103K25

=====Circuit Symbol and No.	===	Part Name	Part No.
D	658	Diode	1SS133
D	701	Diode	1SS133
D	702	Diode	RD18JS(B2)
D	703	Diode	RD18JS(B2)
D	704	Diode	HZS7L(C3)
D	705	Diode	HZS9L(A1)
D	801	Diode	MA8047(H)
D	901	Diode	MA8068(H)
D	903	Diode	ERA15-02VH
D	904	Diode	MA8062(H)
D	905	Diode	HZS6L(C2)
D	906	Diode	HZS9L(B3)
D	907	Diode	MA8062(H)
D	908	Diode	1SS270
D	909	Diode	1SS270
D	910	Diode	HZS6L(C1)
L	501	Ferri-Inductor	LAU2R2K
L	502	Ferri-Inductor	CTF-157
L	503	Ferri-Inductor	LAU2R2K
L	504	Ferri-Inductor	LAU101K
L	507	Ferri-Inductor	LAU2R2K
L	551	Choke Coil	CTH1074
L	552	Coil 600H	CTH1204
L	701	Ferri-Inductor	LAU101K
L	702	Ferri-Inductor	LAU221K
L	801	Ferri-Inductor	LAU101K
L	802	Ferri-Inductor	LAU101K
L	803	Inductor	LCTB2R2K2125
L	804	Ferri-Inductor	LAU101K
L	901	Ferri-Inductor	LAU101K
TH	701	Thermistor	CCX1032
X	501	Crystal Resonator 7.200MHz	CSS1379
X	701	Ceramic Resonator 6.29MHz	CSS1310
X	801	Crystal Resonator 4.332MHz	CSS1056
VR	501	Semi-fixed 2.2kΩ(B)	CCP1202
		FM/AM Tuner Unit	CWE1416
AR	501	Protector	DSP-201M

RESISTORS

R	451		RS1/10S0R0J
R	452		RS1/10S0R0J
R	455		RS1/10S332J
R	456		RS1/10S332J
R	457		RS1/10S682J
R	458		RS1/10S682J
R	459		RS1/10S152J
R	460		RS1/10S152J
R	461		RS1/10S222J
R	462		RS1/10S222J
R	463		RS1/10S101J
R	464		RS1/10S101J
R	465		RS1/10S221J
R	466		RS1/10S221J
R	467		RS1/10S184J
R	468		RS1/10S184J
R	469		RS1/10S153J
R	470		RS1/10S123J
R	501		RS1/10S472J
R	502		RS1/10S562J
R	503		RS1/10S102J
R	504		RS1/10S222J
R	505		RS1/10S222J
R	506		RS1/10S682J
R	507		RS1/10S472J
R	508		RS1/10S222J
R	509		RS1/10S102J
R	510		RS1/10S682J
R	511		RS1/10S472J
R	512		RS1/10S103J
R	513		RS1/10S561J
R	514		RS1/10S152J
R	515		RS1/10S392J
R	516		RS1/10S392J
R	517		RS1/10S272J
R	518		RS1/10S222J
R	519		RS1/10S151J
R	520		RS1/10S821J
R	523		RS1/10S102J
R	525		RS1/10S332J
R	526		RS1/10S332J
R	527		RS1/10S222J
R	528		RS1/10S222J
R	529		RS1/10S223J
R	530		RS1/10S223J
R	531		RS1/10S224J
R	532		RS1/10S224J
R	533		RS1/10S824J
R	537		RS1/10S102J
R	538		RS1/10S103J
R	551		RS1/10S222J
R	552		RS1/10S221J
R	553		RS1/10S153J
R	554		RS1/10S103J
R	555		RS1/10S103J
R	556		RD1/4PU472J
R	557		RD1/4PU102J
R	558		RD1/4PU472J
R	559		RS1/10S472J
R	560		RS1/10S0R0J
R	563		RS1/8S103J
R	564		RS1/10S103J
R	565		RS1/10S102J
R	566		RS1/10S473J
R	601		RS1/10S392J
R	602		RS1/10S392J
R	603		RS1/10S392J
R	604		RS1/10S392J
R	605		RS1/8S121J
R	606		RD1/2PM681J
R	607		RS1/10S682J
R	608		RS1/10S682J
R	609		RS1/10S682J
R	610		RS1/10S682J
R	651		RS1/8S222J
R	652		RS1/8S222J
R	653		RS1/8S222J
R	654		RS1/8S222J
R	701		RS1/10S393J
R	702		RS1/10S473J
R	704		RS1/10S102J
R	705		RS1/10S124J
R	706		RS1/10S472J
R	707		RS1/10S0R0J
R	708		RS1/10S473J
R	709		RS1/10S473J
R	710		RS1/10S102J
R	712		RS1/10S473J
R	714		RA3C472J
R	715		RA3C472J
R	717		RS1/10S0R0J
R	718		RS1/10S0R0J
R	719		RS1/10S0R0J
R	720		RS1/10S0R0J
R	721		RS1/10S681J
R	722		RS1/10S681J
R	723		RS1/10S102J
R	724		RS1/10S681J
R	725		RS1/10S681J
R	726		RS1/10S473J

=====Circuit Symbol and No.	===	Part Name	Part No.
C	509		CKSQYB102K50
C	510		CKSQYB103K25
C	512		CKSQYB103K25
C	513		CKSQYB103K25
C	514		CCSQSL101J50
C	515		CKSQYB104K25
C	518		CKSQYB103K25
C	519		CCSQSL101J50
C	522		CKSQYB104K25
C	523		CKSQYB103K25
C	524		CEJA220M6R3
C	525		CKSQYB103K25
C	526		CEJA220M6R3
C	527		CKSQYB103K50
C	528		CKLSR473K16
C	530	4.7µF/10V	CCH1280
C	531		CKSQYB103K50
C	532	4.7µF/10V	CCH1280
C	533		CKSQYB103K50
C	534		CEJAR47M50
C	535		CKSQYB103K50
C	536		CCSQCH150J50
C	537		CCSQCH150J50
C	538		CEJA100M16
C	539		CKSQYB333K25
C	540		CKSQYB333K25
C	541		CEJA2R2M50
C	542		CEJA2R2M50
C	543		CKSQYB103K25
C	546		CKSQYB223K25
C	551		CQEA224J63
C	552		CQEA224J63
C	553		CQEA224J63
C	554		CQEA224J63
C	555		CEJA100M16
C	556		CSZS1R0M16
C	557		CEJA1R0M50
C	558		CEJA100M16
C	559		CKSQYB104K50
C	561		CKSQYB102K50
C	562		CKSQYB102K50
C	563		CKSQYB102K50
C	564		CKSQYB102K50
C	565		CKSQYB102K50
C	566		CKSQYB102K50
C	567		CKSQYB102K50
C	568		CKSQYB102K50
C	569		CKSQYB104K50
C	570		CKSQYB222K50
C	571	1000µF/16V	CCH1149
C	572		CEJA4R7M35
C	573		CKSQYB222K50
C	574		CKSQYB473K50
C	575		CKSQYB104K50
C	578	3300µF/16V	CCH1150
C	601		CEJA1R0M50
C	602		CEJA1R0M50
C	603		CEJA1R0M50
C	604		CEJA1R0M50
C	605		CEJA100M16
C	606		CEJA100M16
C	607		CEJA100M16
C	608		CEJA100M16
C	701		CCSQSL101J50
C	702		CKSQYB104K25
C	704		CKSQYB102K50
C	705		CEJA2R2M50
C	706		CKSQYB102K50
C	707		CKSQYB102K50
C	708		CKSQYB102K50

=====Circuit Symbol and No.	===	Part Name	Part No.
C	801		CKSQYB103K50
C	803		CKSQYB102K50
C	804		CKSQYB102K50
C	805		CKSQYB102K50
C	806		CCSQCH270J50
C	807		CCSQCH270J50
C	809		CKSYB102K50
C	811		CKSQYB104K25
C	812		CKSQYB222K50
C	813		CKSYB104K25
C	814		CKSYB105K16
C	815		CKSQYB104K25
C	816		CKSQYB472K50
C	817		CEJA100M16
C	818		CKSQYB103K25
C	819		CKSQYB104K25
C	820		CEJANP4R7M16
C	821		CEJA4R7M35
C	823		CKSQYB103K25
C	824		CKSQYB103K25
C	902		CEJA1R0M50
C	903		CEJA101M10
C	904	1000µF/16V	CCH1149
C	905		CKSQYB103K25
C	906		CEJA220M10
C	907		CEJA220M10
C	908		CEJA220M10
C	909		CEJA220M10
C	910		CKSQYB103K25
C	912		CKSQYB223K25
C	913		CEJA220M16
C	914		CEJA2R2M50
C	919		CKSQYB103K25
C	920		CEJA1R0M50

F Unit Number : CWM5030
Unit Name : Keyboard Unit

MISCELLANEOUS

IC	951	IC	PD4762A
IC	952	HIC	RS-21
Q	951	Transistor	2SB1198K
Q	952	Transistor	2SC2713
Q	953	Transistor	DTA114EK
Q	954	Transistor	2SC2712
D	951	Diode	MA153
D	952	Diode	MA153
D	953	Diode	IMN10
D	954	Diode	IMN10
L	951	Inductor	LCTA101K3225
X	951	Ceramic Resonator 4.194MHz	CSS1071
S	951	Push Switch	CSG1061
S	952	Push Switch	CSG1061
S	953	Push Switch	CSG1061
S	954	Push Switch	CSG1061
S	955	Push Switch	CSG1061
S	956	Push Switch	CSG1061
S	957	Push Switch	CSG1061
S	959	Push Switch	CSG1061
S	960	Push Switch	CSG1061
S	961	Switch	CSG1043
S	962	Push Switch	CSG1061
S	963	Push Switch	CSG1061
S	964	Push Switch	CSG1061
S	965	Push Switch	CSG1061
S	966	Switch	CSG1043
S	967	Push Switch	CSG1061
S	968	Encoder	CSD1026
S	969	Push Switch	CSG1061

=====Circuit Symbol and No.		===Part Name	Part No.
S	970	Switch	CSG1043
S	971	Push Switch	CSG1061
IL	951	Lamp 14V40mA	See Contrast table
IL	952	Lamp 14V40mA	See Contrast table
IL	953	Lamp 14V40mA	See Contrast table
IL	955	Lamp 14V40mA	See Contrast table
IL	956	Lamp 14V40mA	See Contrast table
IL	957	Lamp 14V40mA	See Contrast table
IL	958	Lamp 14V40mA	See Contrast table
IL	959	Lamp 14V40mA	See Contrast table
LCD	951	LCD	CAW1398
RESISTORS			
R	951		RS1/8S222J
R	952		RS1/8S222J
R	954		RA4C681J
R	955		RA4C681J
R	956		RS1/10S472J
R	957		RS1/10S472J
R	968		RS1/10S103J
R	969		RS1/10S821J
R	970		RS1/10S821J
R	971		RS1/10S222J
R	972		RS1/8S121J
R	973		RS1/10S681J
R	974		RA4C472J
R	975		RS1/10S472J
R	976		RS1/10S472J
R	977		RS1/10S473J
R	978		RS1/8S2R2J
R	979		RS1/8S2R2J
R	980		RS1/10S473J
R	981		RS1/10S473J
R	982		RS1/10S103J
R	983		RA4C473J
CAPACITORS			
C	952		CKSQYB103K50
C	953		CKSQYB473K25
C	957		CKSQYB103K50
C	958		CKSQYB103K50
C	959		CSZSC100M16

=====Circuit Symbol and No.		===Part Name	Part No.
D		Unit Number : Unit Name : Detector PCB	
Q	1	Photo-transistor	CPT-230S-X
Q	2	Photo-transistor	CPT-230S-X
Q	3	Photo-transistor	CPT-230S-X
Miscellaneous Parts List			
		Pickup Unit(Service)	CXX1230
M	1	Motor Unit(Spindle)	CXA9101
M	2	CRG Motor Unit(Carriage)	CXA8986
M	3	Load Motor Unit(Loading)	CXB2124

CONTRAST TABLE of KEYBOARD UNIT

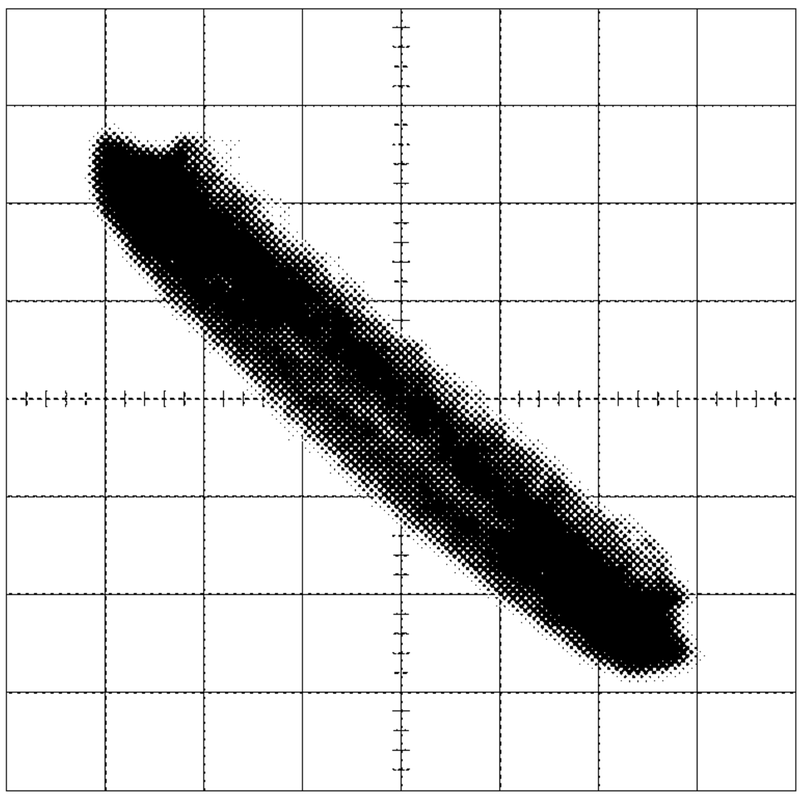
DEH-M7026ZH/EW and DEH-M7526ZH/EW have the same construction except for the following:

Symbol and Description	Part No.	
	DEH-M7026ZH/EW	DEH-M7526ZH/EW
IL 951 Lamp 14V40mA	CEL1533	CEL1553
IL 952 Lamp 14V40mA	CEL1533	CEL1553
IL 953 Lamp 14V40mA	CEL1516	CEL1552
IL 955 Lamp 14V40mA	CEL1516	CEL1552
IL 956 Lamp 14V40mA	CEL1516	CEL1552
IL 957 Lamp 14V40mA	CEL1516	CEL1552
IL 958 Lamp 14V40mA	CEL1516	CEL1552
IL 959 Lamp 14V40mA	CEL1516	CEL1552

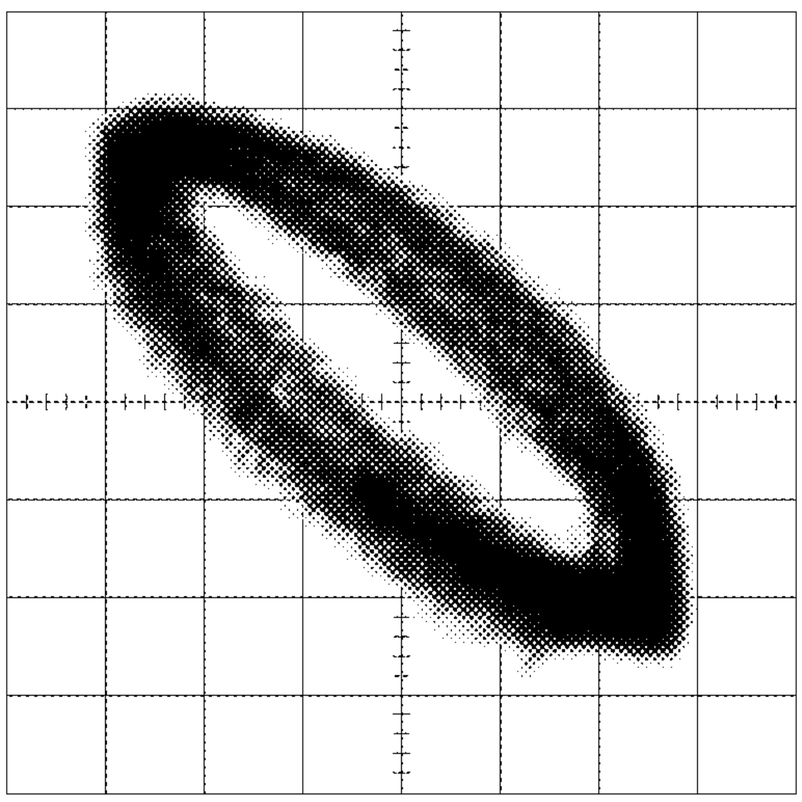
Grating waveform

Ech → Xch 20mV/div, AC
Fch → Ych 20mV/div, AC

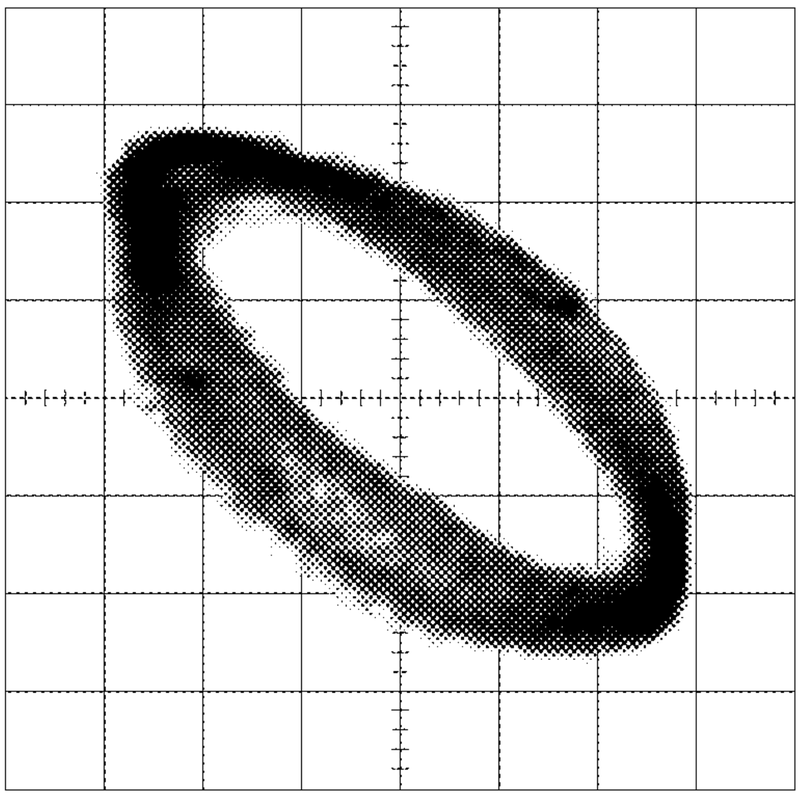
0°



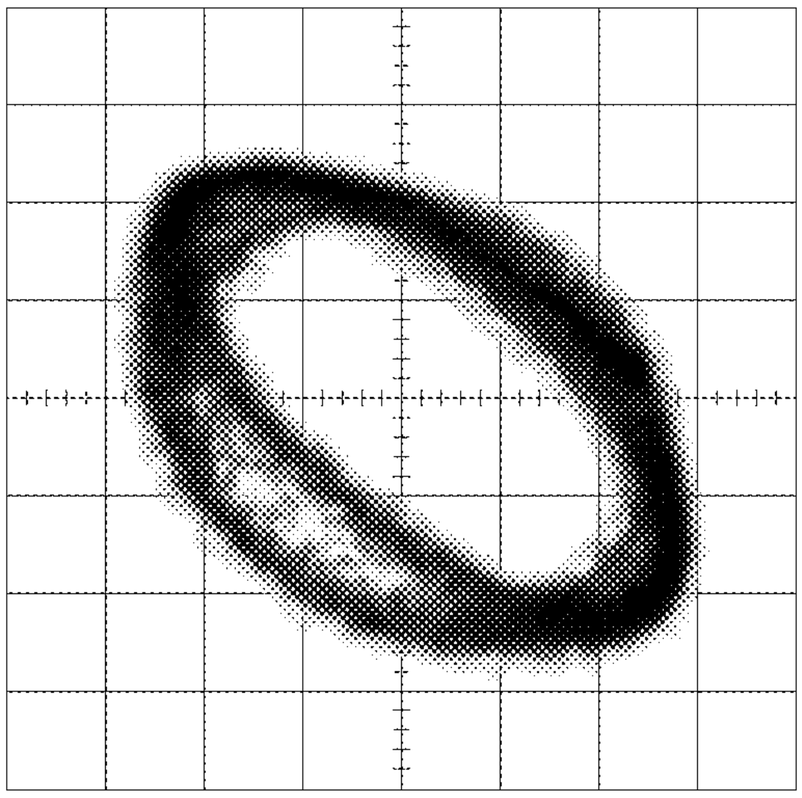
30°



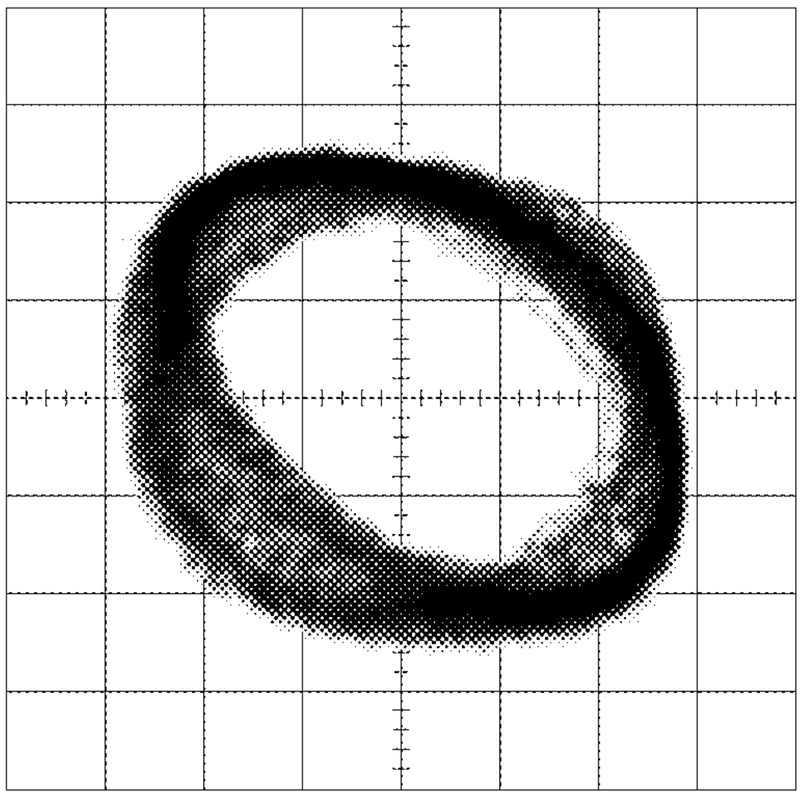
45°



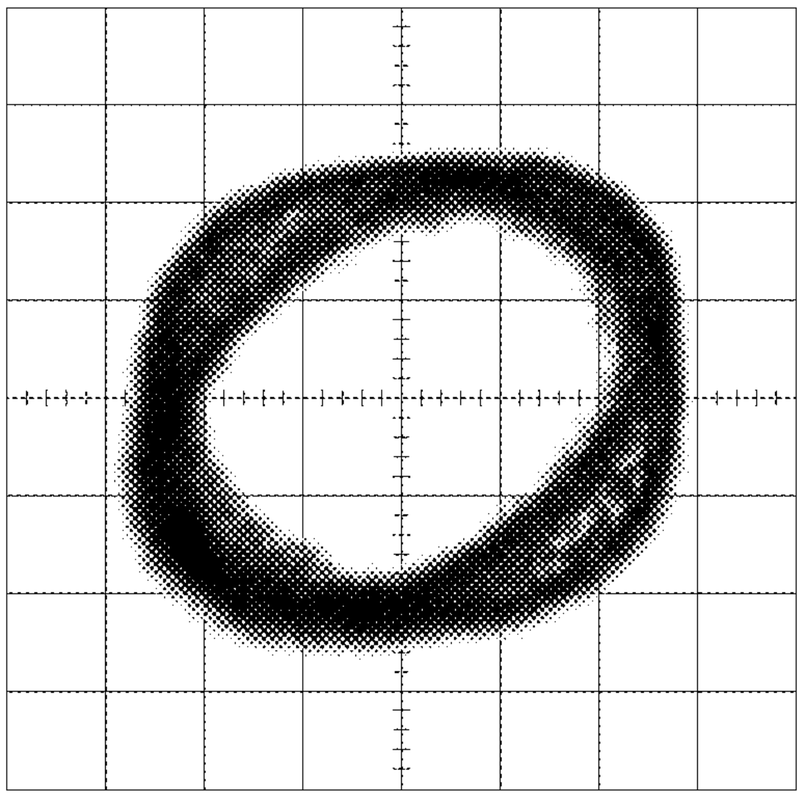
60°



75°



90°



6.2 CHECKING THE GRATING

● Checking the Grating After Changing the Service Pickup Unit

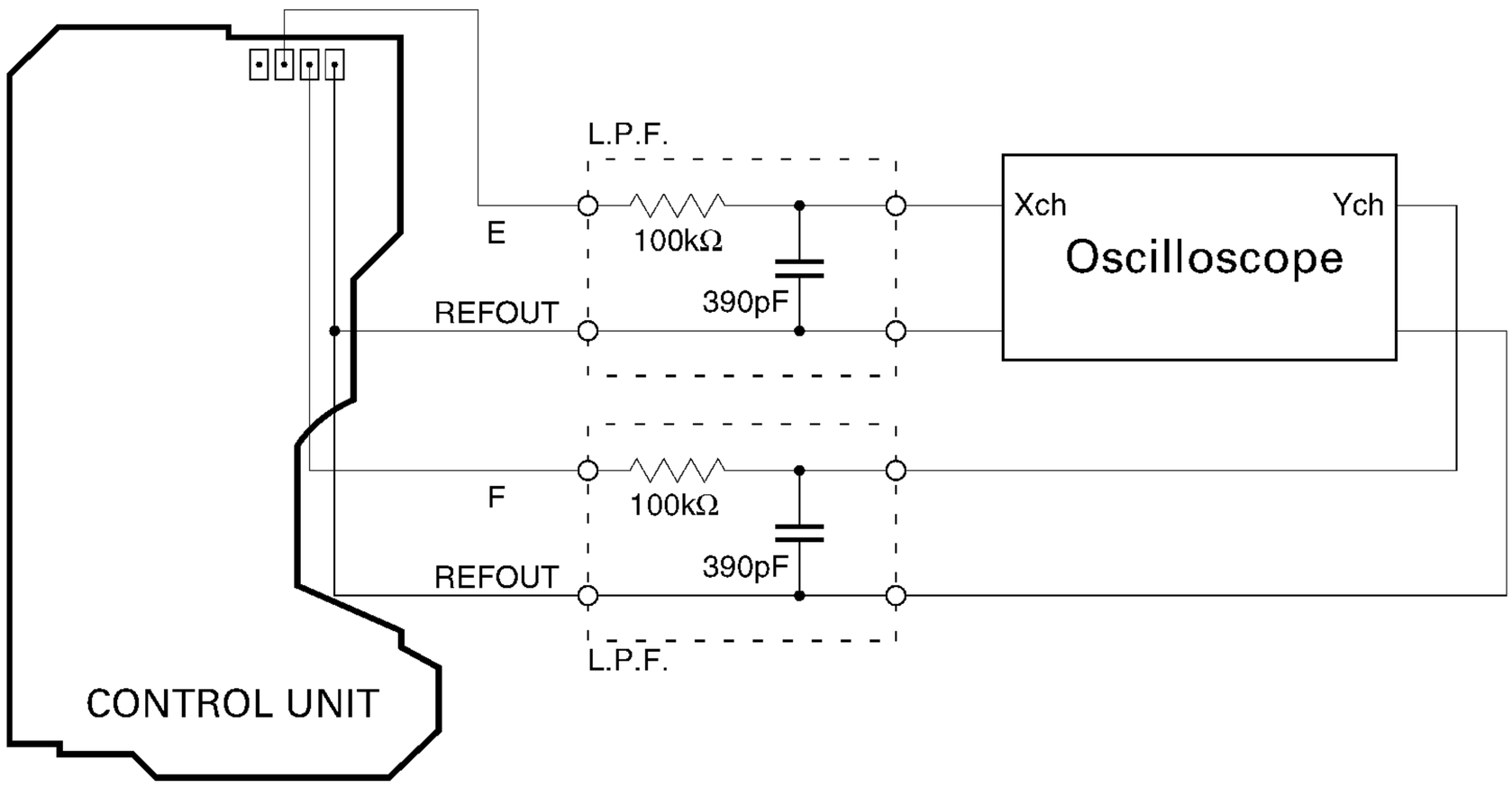
· Note :
Unlike previous CD mechanism modules the grating angle of the Pickup unit cannot be adjusted after the Pickup unit is changed. The Pickup unit in the CD mechanism module is adjusted on the production line to match the CD mechanism module and is thus the best adjusted Pickup unit for the CD mechanism module. Changing the Pickup unit is thus best considered as a last resort. However, if the Pickup unit must be changed, the grating should be checked using the procedure below.

· Purpose :
To check that the grating is within an acceptable range.

· Symptoms of Mal-adjustment :
If the grating is off by a large amount symptoms such as being unable to close tracking, being unable to perform track search operations, or track searching taking a long time, may appear.

· Method :

· Measuring Equipment	· Oscilloscope, Two L.P.F.
· Measuring Points	· E, F, REFOUT
· Disc	· ABEX TCD-784
· Mode	· TEST MODE



· Checking Procedure

1. In test mode, load the disc and switch the 5V regulator on.
2. Using the TR+ and TR- buttons, move the Pickup unit to the innermost track.
3. Press key **3** to close focus, the display should read "91". Press key **2** to implement the tracking balance adjustment the display should now read "81". Press key **3** 4 times. The display will change, returning to "81" on the fourth press.
4. As shown in the diagram above, monitor the LPF outputs using the oscilloscope and check that the phase difference is within 75° . Refer to the photographs supplied to determine the phase angle.
5. If the phase difference is determined to be greater than 75° try changing the Pickup unit to see if there is any improvement. If, after trying this a number of times, the grating angle does not become less than 75° then the mechanism should be judged to be at fault.

· Note
Because of eccentricity in the disc and a slight misalignment of the clamping center the grating waveform may be seen to "wobble" (the phase difference changes as the disc rotates). The angle specified above indicates the average angle.

· Hint
Reloading the disc changes the clamp position and may decrease the "wobble".

FM ADJUSTMENT

Modulation M1:MONO MOD., 400Hz 30%(22.5kHz Dev.)
M2:MONO MOD., 1kHz 30%(22.5kHz Dev.)
S1:STEREO MOD., 1kHz, L or R=30%(20.25kHz+7.5kHz Dev.)

NOTE:Before proceeding to further adjustments after switching power ON, let the tuner run for ten minutes to allow the circuits to stabilize.

	No.	FM SSG		Displayed	Adjustment	Adjustment Method
		Frequency(MHz)	Level(dBf)	Frequency(MHz)	Point	(Switch Position)
TUN Volt	1	•••••	•••••	108.0	L5	DC V Meter(1) : 6V
IF	1	98.1 M1	60	98.1	T51	Center Meter : 0
ANT Coil	1	98.1 M1	5	98.1	L2	mV Meter(1) : Maximum
RF Coil	1	98.1 M1	5	98.1	L4	mV Meter(1) : Maximum
Image	1	129.3 M1	60—80	107.9	TC1	mV Meter(1) : Minimum
IFT	1	98.1 M1	5	98.1	T31	mV Meter(1) : Maximum (STEREO MODE)
ARC	1	98.1 S1	40	98.1	VR154	mV Meter(1) : Separation 5dB (STEREO MODE)

RDS SL ADJUSTMENT

	No.	FM SSG		Displayed	Adjustment	Adjustment Method
		Frequency(MHz)	Level(dBf)	Frequency(MHz)	Point	(Switch Position)
	1	98.1 M2	35	98.1	VR501	DC V Meter(2) : 1.75+0.05V,-0.35V

6. ADJUSTMENT

6.1 TUNER SECTION

● **Connection Diagram**

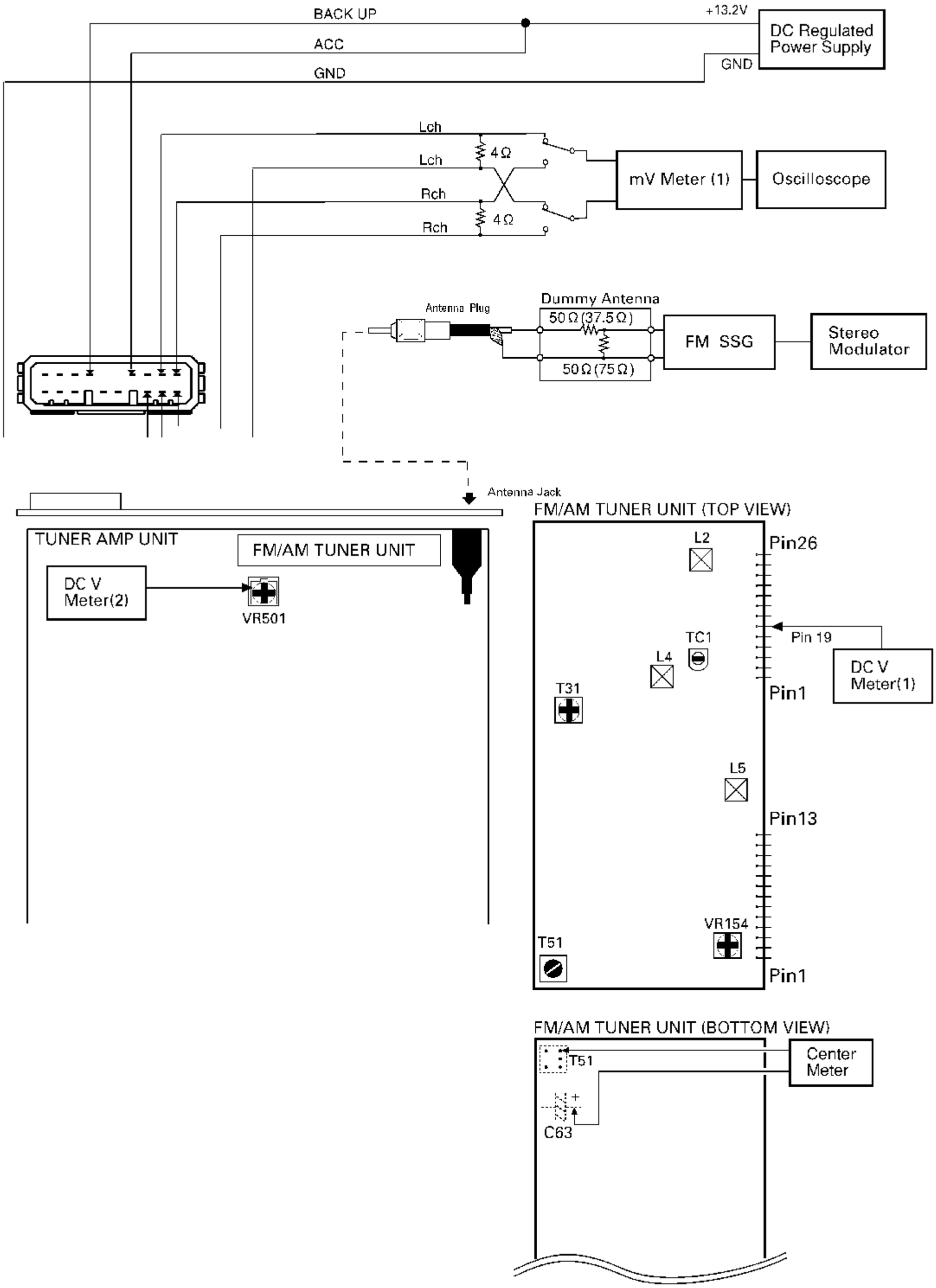


Fig. 21

7. GENERAL INFORMATION

7.1 PARTS

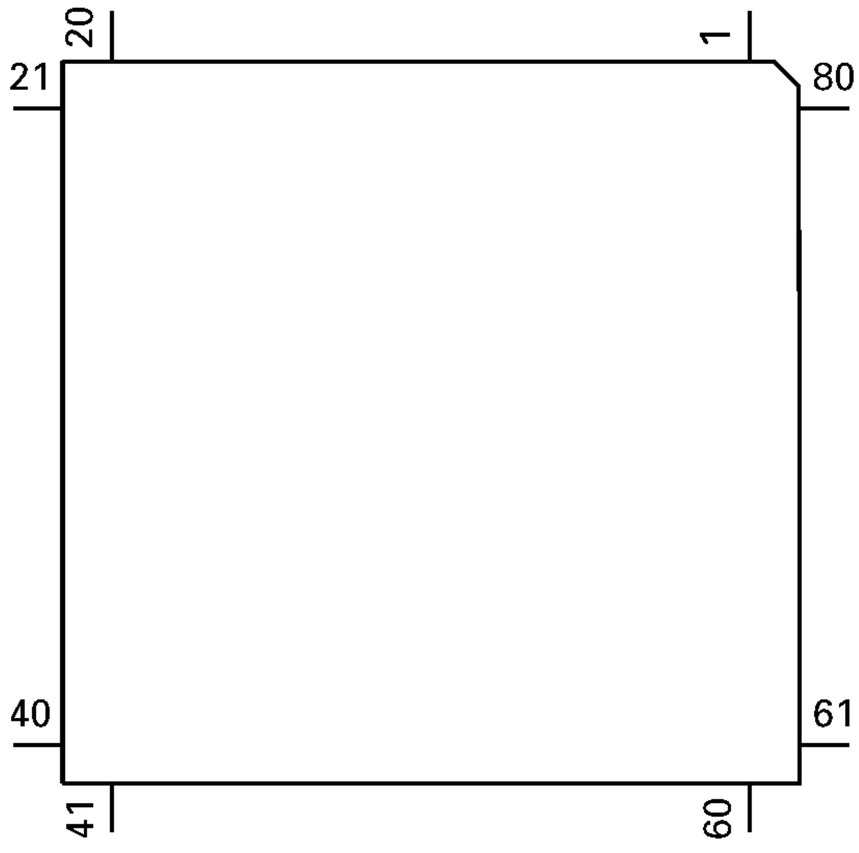
7.1.1 IC

● **Pin Functions (PD4763A)**

Pin No.	Pin Name	I/O	Format	Function and Operation
1	VST	O	C	Strobe pulse output for electronic volume
2	VCK	O	C	Clock output for electronic volume
3	VDT	O	C	Data output for electronic volume
4	AVSS			GND
5,6	NC			Not used
7	AVREF1			D/A converter reference voltage
8	KYDT	I		Key data input
9	DPDT	O	C	Display data output
10	NC			Not used
11	XSI	I		Serial input (CD)
12	XSO	O	C	LSI data output
13	$\overline{\text{XCK}}$	O	C	Serial clock output (CD)
14	ILMPW	O	C	Illumination power supply control output
15	RDSTEST			GND
16	RDSDI	I		Serial data input for RDS IC
17	RDSDO	O	C	Serial data output for RDS IC
18	RDSCK	O	C	Serial clock for RDS IC
19	RDSRST	O	C	Reset output for RDS IC
20	RDSSEL	O	C	Select output for RDS IC
21	NC			Not used
22	CDEJCT	O		CD eject control output
23	CDLOAD	O	C	LOAD motor loading control output
24	CD5VON	O	C	CD +5V power supply control output
25	CONT	O	C	Servo driver power control output (CD)
26	VDCONT	O	C	VD control output
27	LOCK	I	C	Spindle lock detector input
28	MIRR	I	C	Mirror detector input
29	FOK	I	C	FOK signal input
30	$\overline{\text{XSTB}}$	O	C	CD LSI strobe output
31	XAO	O	C	CD LSI data discernment control signal output
32	$\overline{\text{XRST}}$	O	C	CD LSI reset output
33	VSS			GND
34	CLAMP	I		Disc clamp sense input
35	NC			Not used
36	$\overline{\text{SWVDD}}$	O	C	Grille power supply control output
37	$\overline{\text{CDMUTE}}$	O	C	CD mute output
38	NC			Not used
39	$\overline{\text{TUMUTE}}$	O	N	Tuner mute output
40	NC			Not used
41	$\overline{\text{SYSPOW}}$	O	C	System power control output
42	PDI	I		PLL data input
43	PCK	O	C	PLL clock output
44	PDO	O	C	PLL data output
45	PEE1	O	C	Beep tone output
46	PEE2	O	C	Beep tone output
47	PCE	O	C	PLL chip enable output
48,49	NC			Not used
50	FMSD	I		FM SD input
51	$\overline{\text{ST}}$	I		Stereo input
52	IPPW	O	C	Power supply control output for IP BUS interface IC
53	ASENBO	O	C	Slave power supply control output
54,55	NC			Not used

Pin No.	Pin Name	I/O	Format	Function and Operation
56	IPDO	O	C	IE-BUS data output
57	IPDI	I		IE-BUS data input
58	NC			Not used
59	$\overline{\text{MUTE}}$	O	C	System mute output
60	$\overline{\text{RESET}}$			
61	RDSRDY	I		Ready input from RDS IC
62	$\overline{\text{BSENS}}$	I		Back up power sense input
63	$\overline{\text{ASENS}}$	I		ACC power sense input
64	$\overline{\text{ILMSENS}}$	I		Illumination sense input
65	$\overline{\text{DSENS}}$	I		Grille detach sense
66	$\overline{\text{CDEJ}}$	I		CD eject key sense input
67	ADPW	O	C	Control output for analog input reference power
68	VDD			Power supply
69	X2	O		Crystal oscillator connection pin
70	X1	I		Crystal oscillator connection pin
71	IC			VPP
72	XT2			Sub clock
73	TESTIN	I		Test program mode input
74	AVDD			A/D converter power supply
75	AVREF0			A/D converter standard voltage input
76	SL	I		Signal level input
77	TEMP	I		Temperature sense input (CD)
78	VDSENS	I		Over voltage sense input
79	DSCSNS	I		Disc detect
80	EJTSNS	I		Disc EJECT position detect

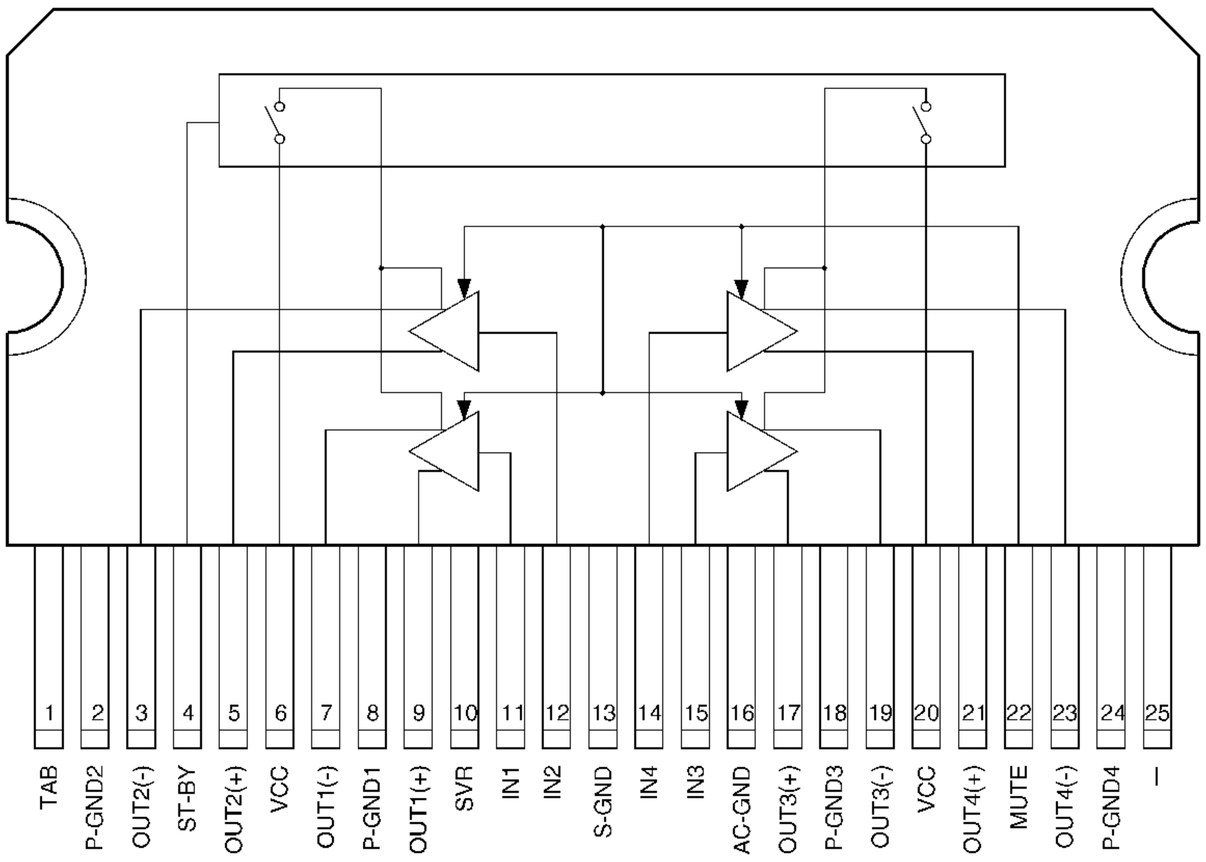
*PD4763A



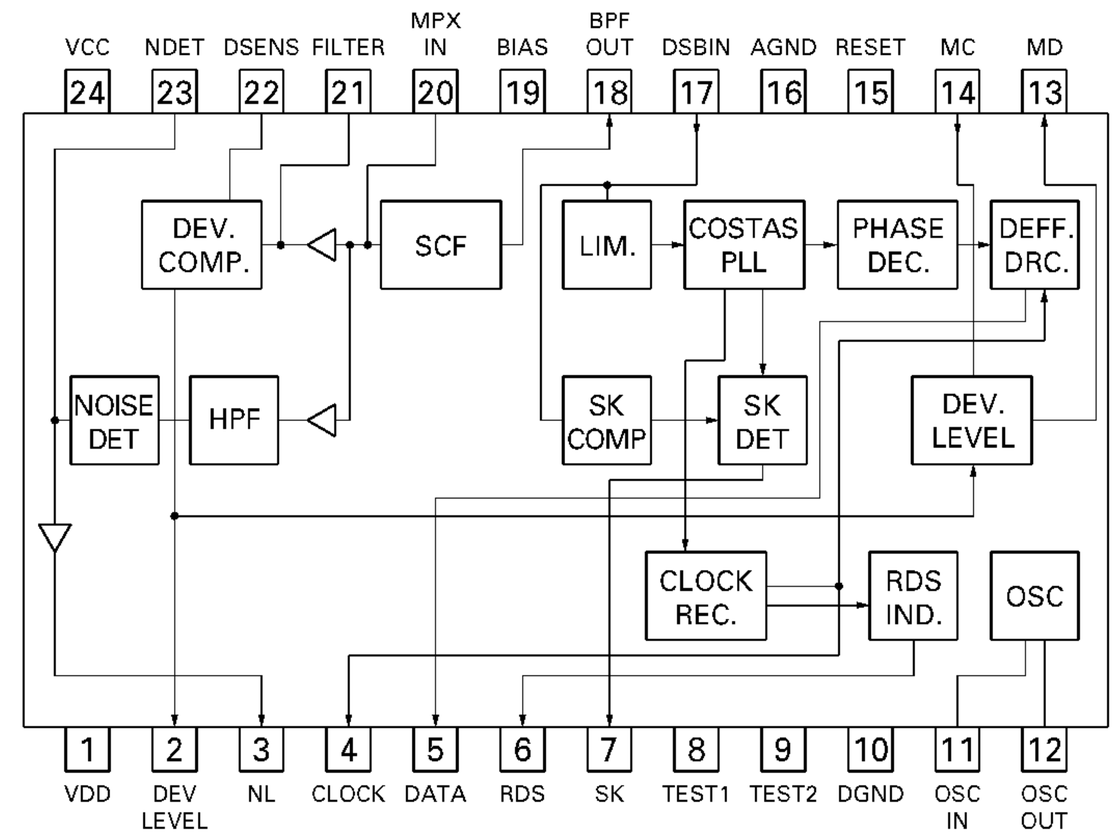
Format	Meaning
C	C MOS
N	N channel open drain

IC's marked by are MOS type.*
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

TDA7384A



PWM001B



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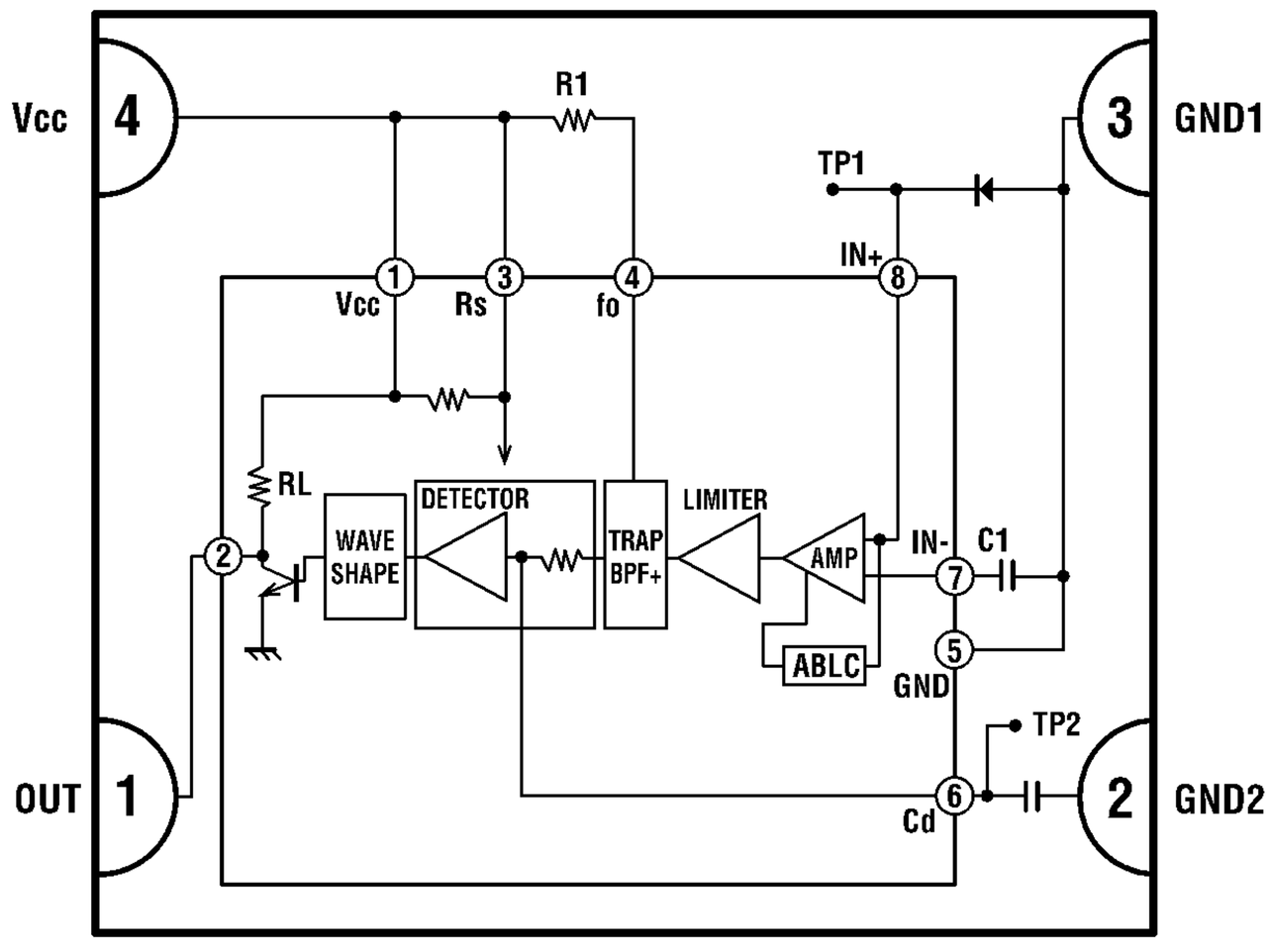

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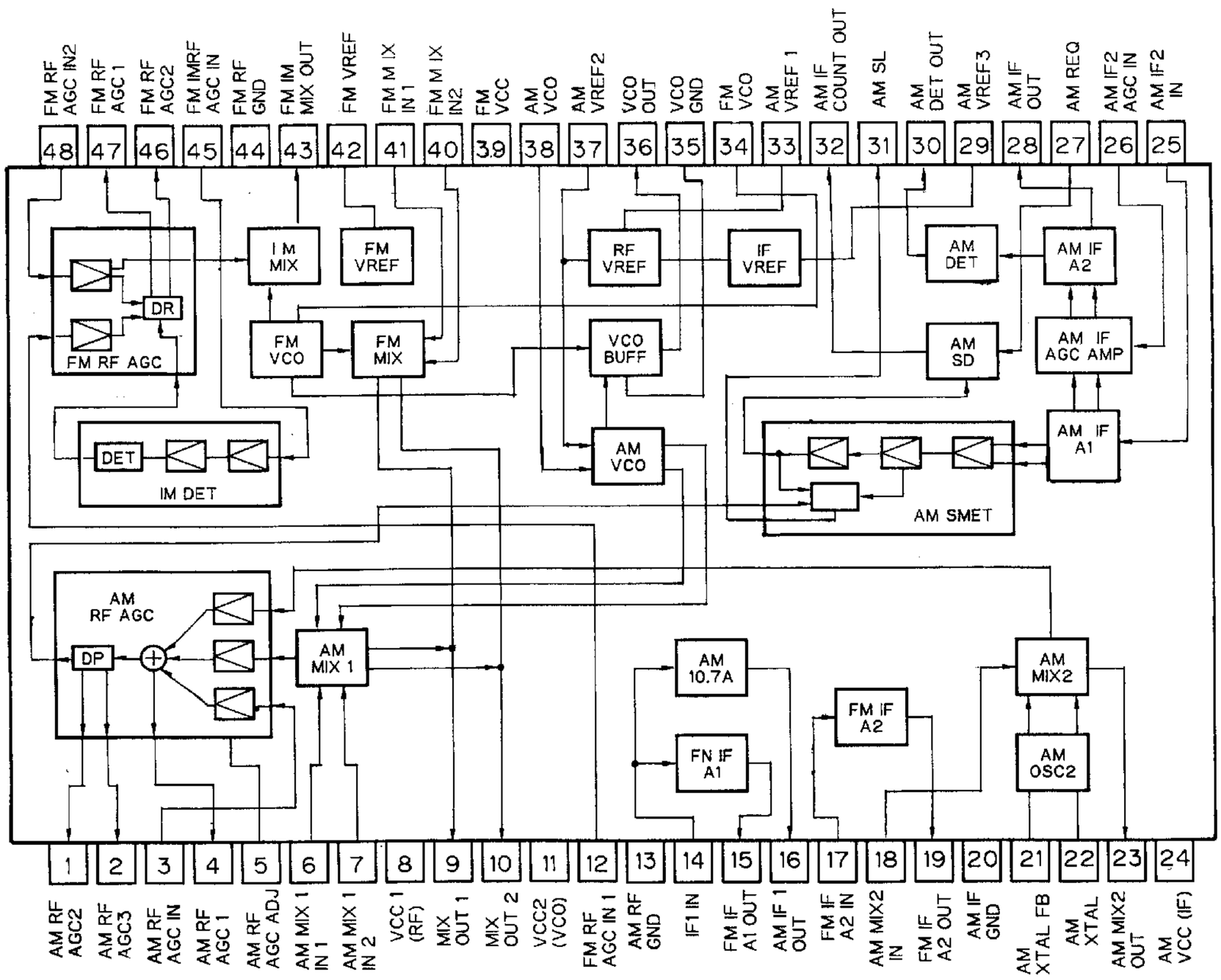
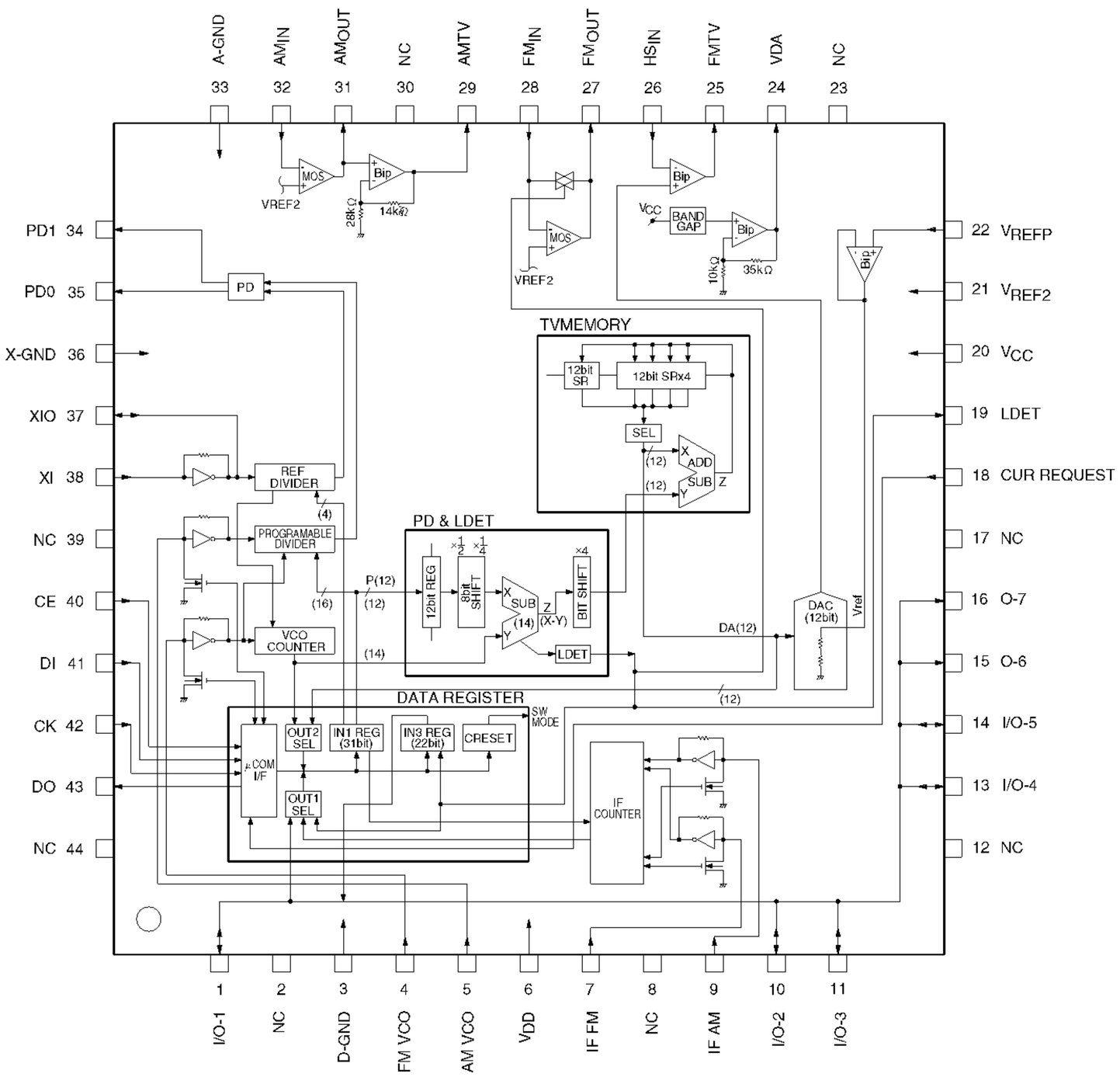


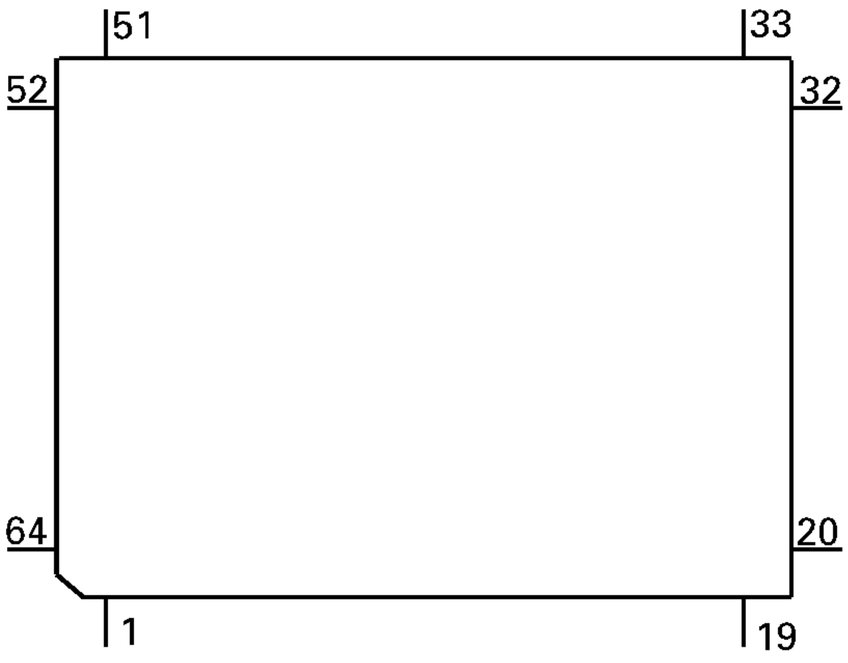
*PM2007A



● Pin Functions (PD6223A)

Pin No.	Pin Name	I/O	Format	Function and Operation
1	$\overline{\text{PCK}}$	O	N	Serial clock output for PLL IC
2	PDO	O	N	Data output for PLL IC
3	PDI	I		Data input from PLL IC
4	SL	I		Signal level input
5	NL	I		Noise level input
6	MDSENS	I		Modulation detect input
7	SOUND	I		Audio signal input
8	$\overline{\text{RMUTE}}$	O		RDS mute output
9-11	OPEN			Open
12	AVCC			Analog power supply
13	AVR			5V power supply
14	AVSS	I		A/D GND
15	IRSEL	I		Select input
16	$\overline{\text{RCK}}$	I		RDS demodulation clock input
17	RDT	I		RDS demodulation data input
18	$\overline{\text{LDET}}$	I		PLL lock sense input
19	$\overline{\text{RDSLK}}$	I		RDS LK signal input
20	$\overline{\text{RDSRST}}$	I		Reset input
21	MOD0	I		Operation mode appointment input
22	MOD1	I		Operation mode appointment input
23	XIN	I		Crystal oscillating element connection pin
24	XOUT	O		Crystal oscillating element connection pin
25	VSS			GND
26	DRST	O	C	Decoder reset output
27	$\overline{\text{L}}$/S		C	Sensitivity of noise level select
28	$\overline{\text{CURRQ}}$	O		Tuner voltage FIX output
29	IRRDY	O	C	Communication ready output
30-38	NC			Not used
39	$\overline{\text{SK IN}}$			SK signal input
40-49	NC			Not used
50	VSS			GND
51	TEST	I		Test terminal
52	IRCK	I		Clock input
53	IRDO	O	C	Communication data output
54	IRDI	I		Communication data input
55	RDS57K	I		57kHzBP-OUT sense input
56	GD	O	C	Gate drive control output
57	VCC			5V
58	SD	I		SD signal input
59	PCE	O	C	Chip enable output for PLL IC
60-64	OPEN			Open

*PD6223A

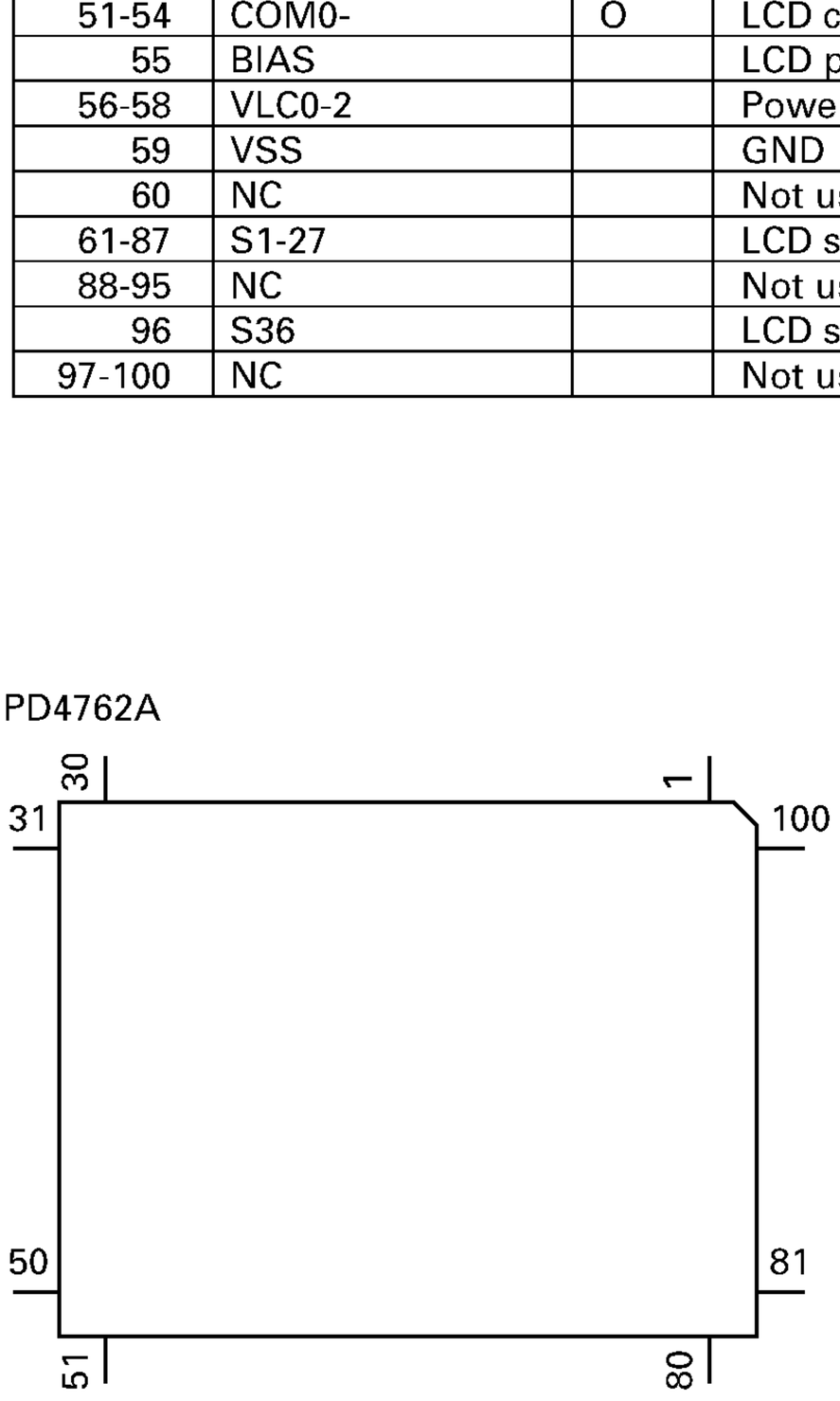


Format	Meaning
C	C MOS
N	N channel open drain

● Pin Functions (PD4762A)

Pin No.	Pin Name	I/O	Function and Operation
1,2	NC		Not used
3	DPDT	I	Display data input
4	KYDT	O	Key data output
5	NC		Not used
6	GND		GND
7	X2		Crystal oscillator connection pin
8	X1		Crystal oscillator connection pin
9	VDD		Power supply
10,11	NC		Not used
12	RESET	I	Reset input
13	REMIN	I	Remote control signal input
14	NC		Not used
15	LCDBK	O	LCD back light output
16-18	NC		Not used
19-22	KDT3-0	I	Matrix key return
23,24	NC		Not used
25,26	KST4,3	O	Key strobe output
27	AVSS		GND
28-30	KST2-0	O	Key strobe output
31	VOLUP	I	Volume up input from encoder
32	VOLDN	I	Volume down input form encoder
33-35	NC		Not used
36	AVDD		Positive power supply terminal for analog circuit
37	AVREF	I	A/D converter reference voltage
38,39	NC		Not used
40	VSS		GND
41-50	NC		Not used
51-54	COM0-	O	LCD common output
55	BIAS		LCD power supply
56-58	VLC0-2		Power supply
59	VSS		GND
60	NC		Not used
61-87	S1-27		LCD segment output
88-95	NC		Not used
96	S36		LCD segment output
97-100	NC		Not used

*PD4762A



7.1.2 DISPLAY

● **CAW1398**

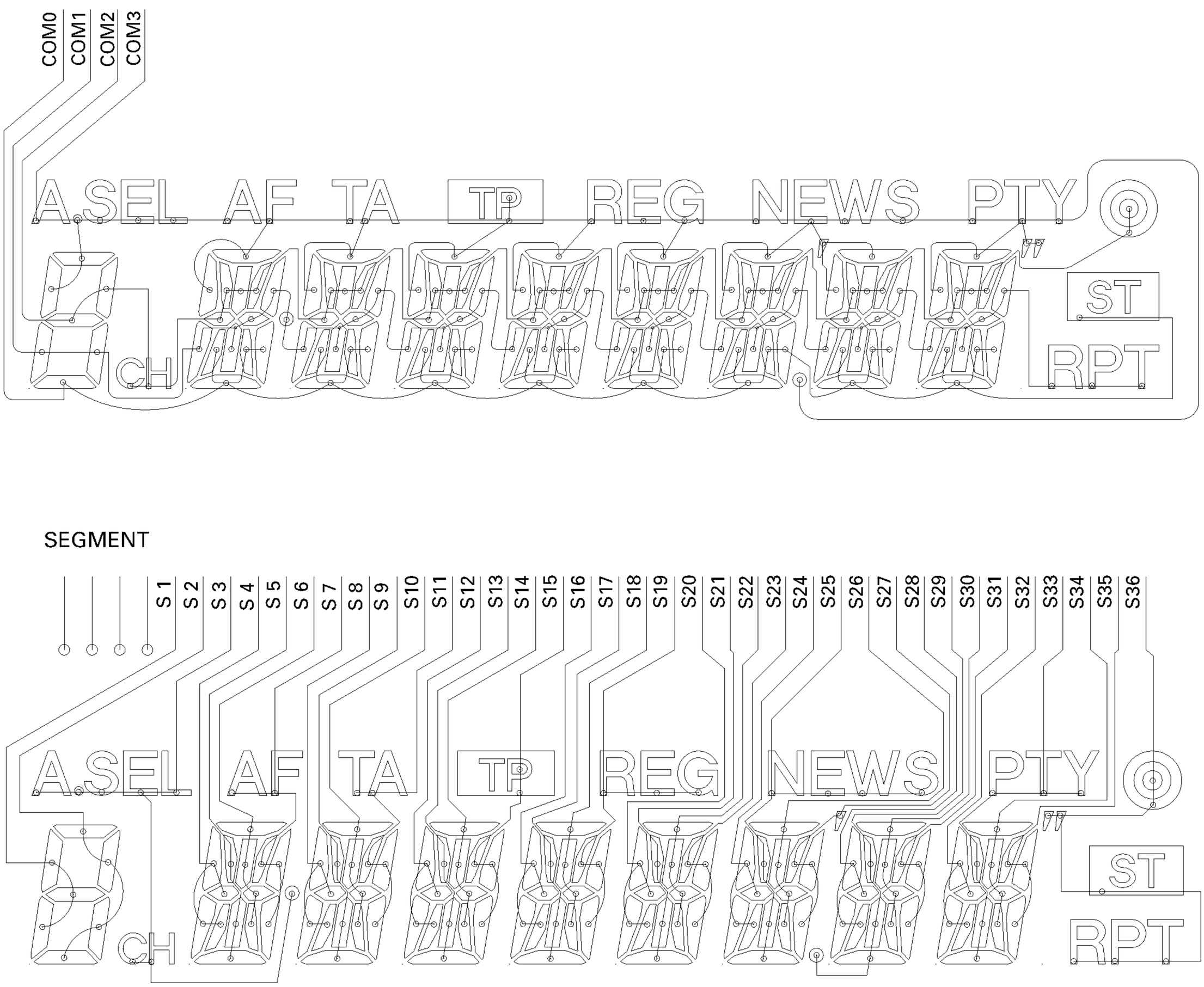
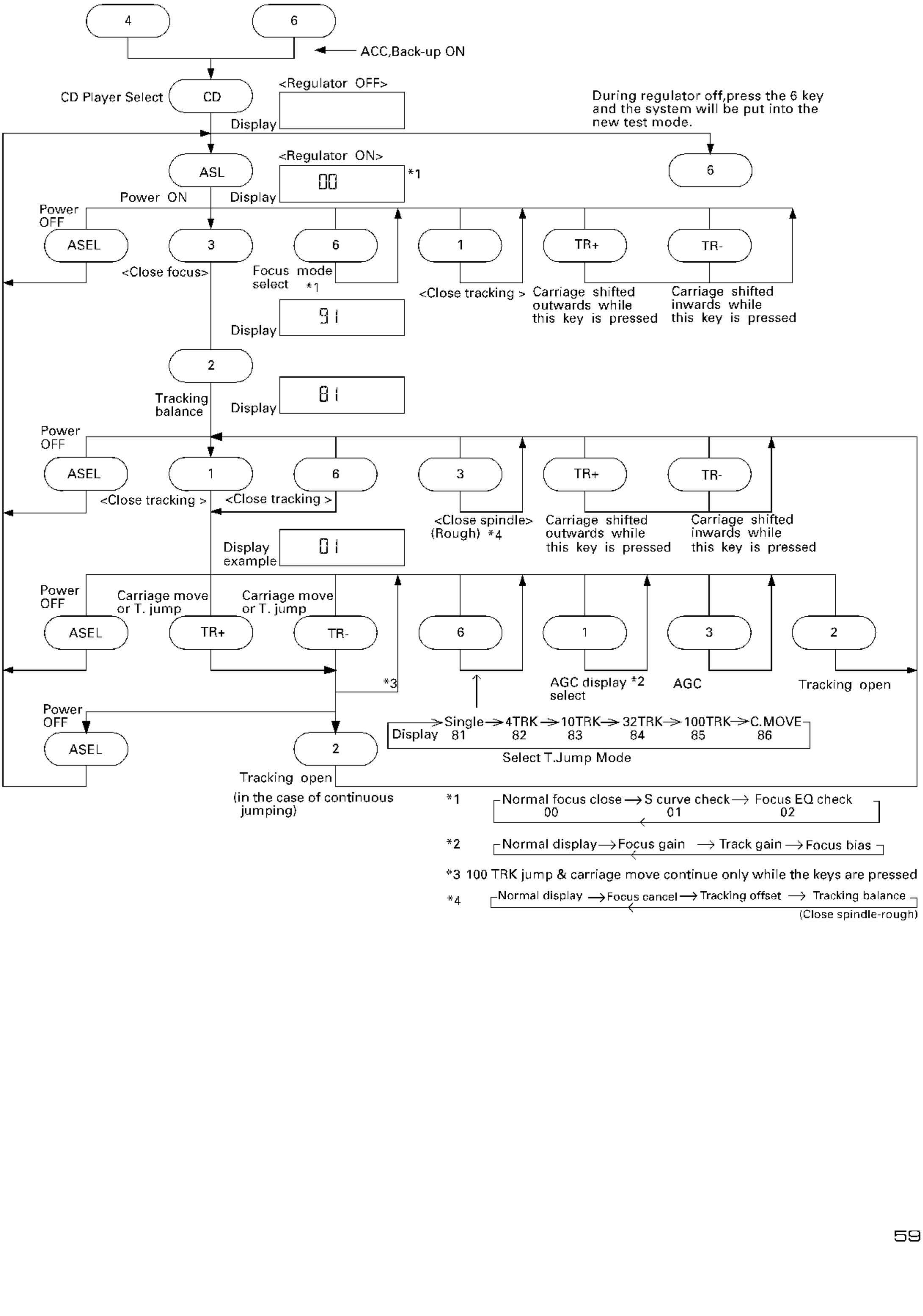


Fig. 22

● Flow Chart


4
6
ACC,Back-up ON
CD Player Select
CD
<Regulator OFF>
Display
During regulator off,press the 6 key and the system will be put into the new test mode.
ASL
<Regulator ON>
00
*1
Power ON
Display
6
Power OFF
ASEL
3
6
1
TR+
TR-
<Close focus>
Focus mode select *1
<Close tracking >
Carriage shifted outwards while this key is pressed
Carriage shifted inwards while this key is pressed
91
Display
2
Tracking balance
01
Display
Power OFF
ASEL
1
6
3
TR+
TR-
<Close tracking >
<Close tracking >
<Close spindle> (Rough) *4
Carriage shifted outwards while this key is pressed
Carriage shifted inwards while this key is pressed
Display example
01
Power OFF
ASEL
Carriage move or T. jump
TR+
Carriage move or T. jump
TR-
6
1
3
2
*3
AGC display *2 select
AGC
Tracking open
Power OFF
ASEL
2
Tracking open
(in the case of continuous jumping)
Display
Single → 4TRK → 10TRK → 32TRK → 100TRK → C.MOVE
81 82 83 84 85 86
Select T.Jump Mode
*1 Normal focus close → S curve check → Focus EQ check
00 01 02
*2 Normal display → Focus gain → Track gain → Focus bias
*3 100 TRK jump & carriage move continue only while the keys are pressed
*4 Normal display → Focus cancel → Tracking offset → Tracking balance
(Close spindle-rough)

7.2.2 TEST MODE

● CD Test Mode

1)Precautions

· This unit uses a single power supply (+5V) for the regulator. The signal reference potential, therefore, is connected to REFO(approx. 2.5V) instead of GND.
If REFO and GND are connected to each other by mistake during adjustments, not only will it be impossible to measure the potential correctly, but the servo will malfunction and a severe shock will be applied to the pick-up. To avoid this, take special note of the following.
Do not connect the negative probe of the measuring equipment to REFO and GND together. It is especially important not to connect the channel 1 negative probe of the oscilloscope to REFO with the channel 2 negative probe connected to GND.
Since the frame of the measuring instrument is usually at the same potential as the negative probe, change the frame of the measuring instrument to floating status.
If by accident REFO comes in contact with GND, immediately switch the regulator or power OFF.

· Always make sure the regulator is OFF when connecting and disconnecting the various filters and wiring required for measurements.

· Before proceeding to further adjustments and measurements after switching regulator ON, let the player run for about one minute to allow the circuits to stabilize.

· Since the protective systems in the unit's software are rendered inoperative in test mode, be very careful to avoid mechanical and /or electrical shocks to the system when making adjustment.

· Test mode starting procedure
Switch ACC, back-up ON while pressing the **4** and **6** keys together.

· Test mode cancellation
Switch ACC, back-up OFF.

· Disc detection during loading and eject operations is performed by means of a photo transistor in this unit.Consequently, if the inside of the unit is exposed to a strong light source when the outer casing is removed for repairs or adjustment, the following malfunctions may occur.
*During PLAY, even if the eject button is pressed,the disc will not be ejected and the unit will remain in the PLAY mode.
*The unit will not load a disc.
When the unit malfunctions this way, either re-position the light source, move the unit or cover the photo transistor.

· When loading and unloading discs during adjustment procedures, always wait for the disc to be properly clamped or ejected before pressing another key. Otherwise, there is a risk of the actuator being destroyed.

· Turn power off when pressing the button TR+ or the button TR- key for focus search in the test mode. (Or else lens may stick and the actuator may be damaged.)

· SINGLE/4TRK/10TRK/32TRK will continue to operate even after the key is released.Tracking is closed the moment C-MOVE is released.

· JUMP MODE resets to SINGLE as soon as power is switched OFF.

7.2 DIAGNOSIS

7.2.1 DISASSEMBLY

● Removing the Case(Not shown)

1. Remove the two screws.
2. Insert and turn a flat screwdriver to remove the case.

● Removing the Detach Grille Assy(Fig.23)

1. Press the open button, and then pull Detach Grille Assy.

● Removing the Panel Assy(Fig.23)

1. Remove the two screws.
3. Remove the Panel Assy.

● Removing the CD Mechanism Module(Fig.23)

1. Remove the four screws.
2. Disconnect the connector.
3. Remove the CD Mechanism Module.

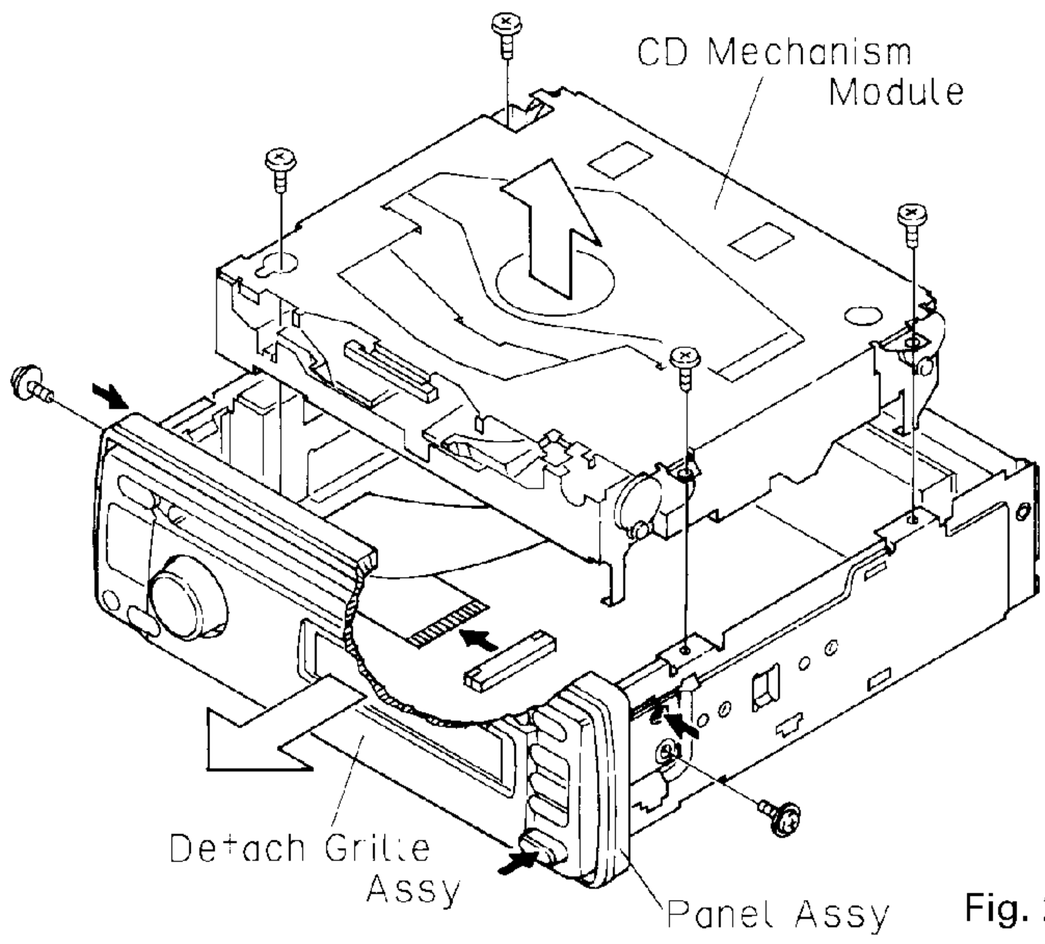


Fig. 23

● Removing the Chassis Unit and Connector PCB(Fig.24)

1. Remove the seven screws.
2. Stretch the four claws, and then remove the Chassis Unit and Connector PCB.

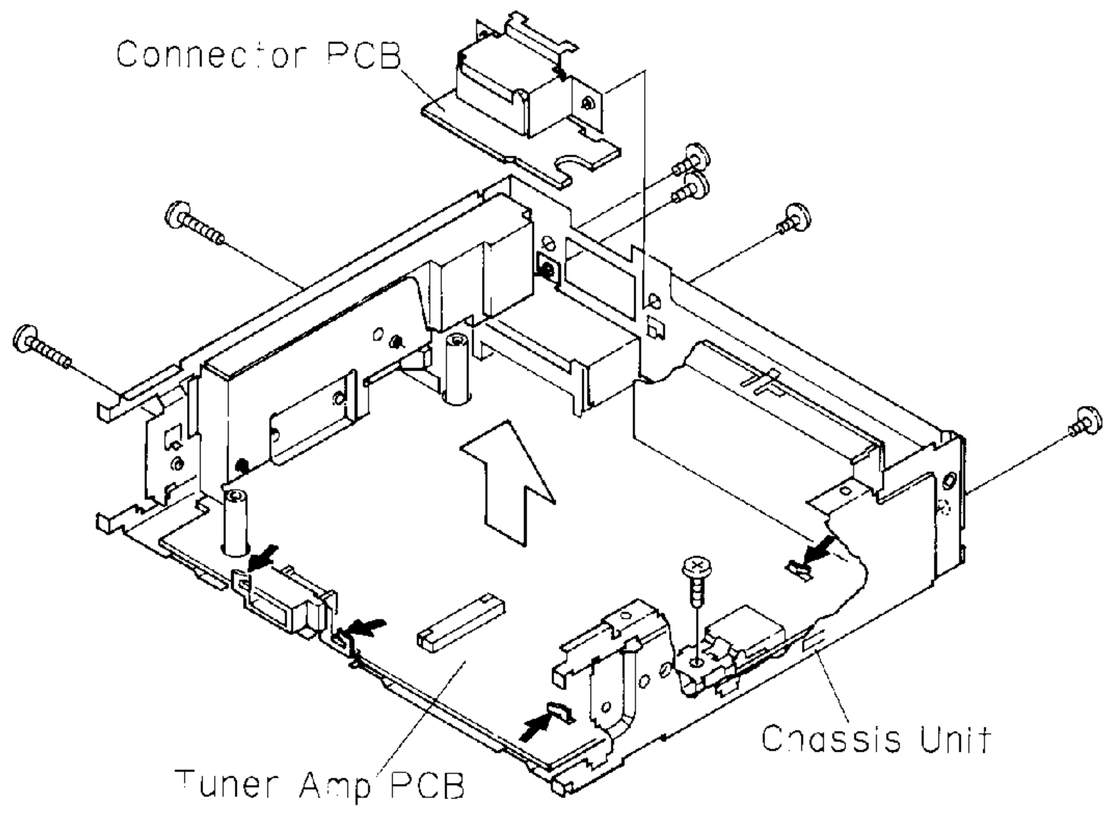


Fig. 24

● New Test Mode(aging operation and setup analysis)

The single CD player plays in normal mode. After being set up, it will display FOK (focus), LOCK (spindle), subcode, sound skip, protection against a mechanical error or the like, occurrence of an error, cause and time of an expiry, if any, (and disc number).

During the setup, the CD software operation status (internal RAM and C-point)is displayed.

(1) How to enter NEW TEST Mode

See the test mode flow chart Page 59.

(2) Relations of keys between TEST and NEW TEST Modes

Keys	Test Mode		New Test Mode	
	Regulator OFF	Regulator ON	PLAY in progress	Error Occurred, Protection Activated
ASEL	Regulator ON	Regulator OFF	RANDOM	—
TR+	—	FWD-KICK	TRACK+ / FF	—
TR-	—	REV-KICK	TRACK- / REV	—
1	—	TRACKING CLOSE	—	—
2	—	TRACKING OPEN	—	—
3	—	FOCUS CLOSE	—	—
4	—	FOCUS OPEN	—	—
5	—	JUMP OFF	—	—
6	To New Test Mode Select	JUMP (FOCUS MODE)	—	Time of occurrence / cause of error select
RPT	—	—	RPT	—

Operations, such as EJECT, CD ON/OFF, etc. are performed normally.

(4) Indicating an Operation Status During Setup

Status No.	Description	Protection operation
01	Carriage home mode started	None
02	Carriage moving inwards	10-second time out, Home switch failed
03	Carriage moving outwards	10-second time out, Home switch failed
05	Carriage moving outwards	None
11	Setup started	None
12	Spindle turn/Focus search started	None
13	Waiting for focus closure (XSI=L)	Failure to close focus
10,14	Waiting for focus closure (FOK=H)	Failure to close focus
15, 16, 17	Focus closed, Tracking open	Focus disrupted
18	During focus AGC Subcode waiting	Focus disrupted
19	During tracking AGC	Disrupted focus
20	Waiting for MIRR, LOCK or subcode read Carriage closed, SPINDLE=ADAPTIVE	Focus disrupted, MIRR NG, Failure to lock, Failed to read subcode

7.2.3 CONNECTOR FUNCTION DESCRIPTION

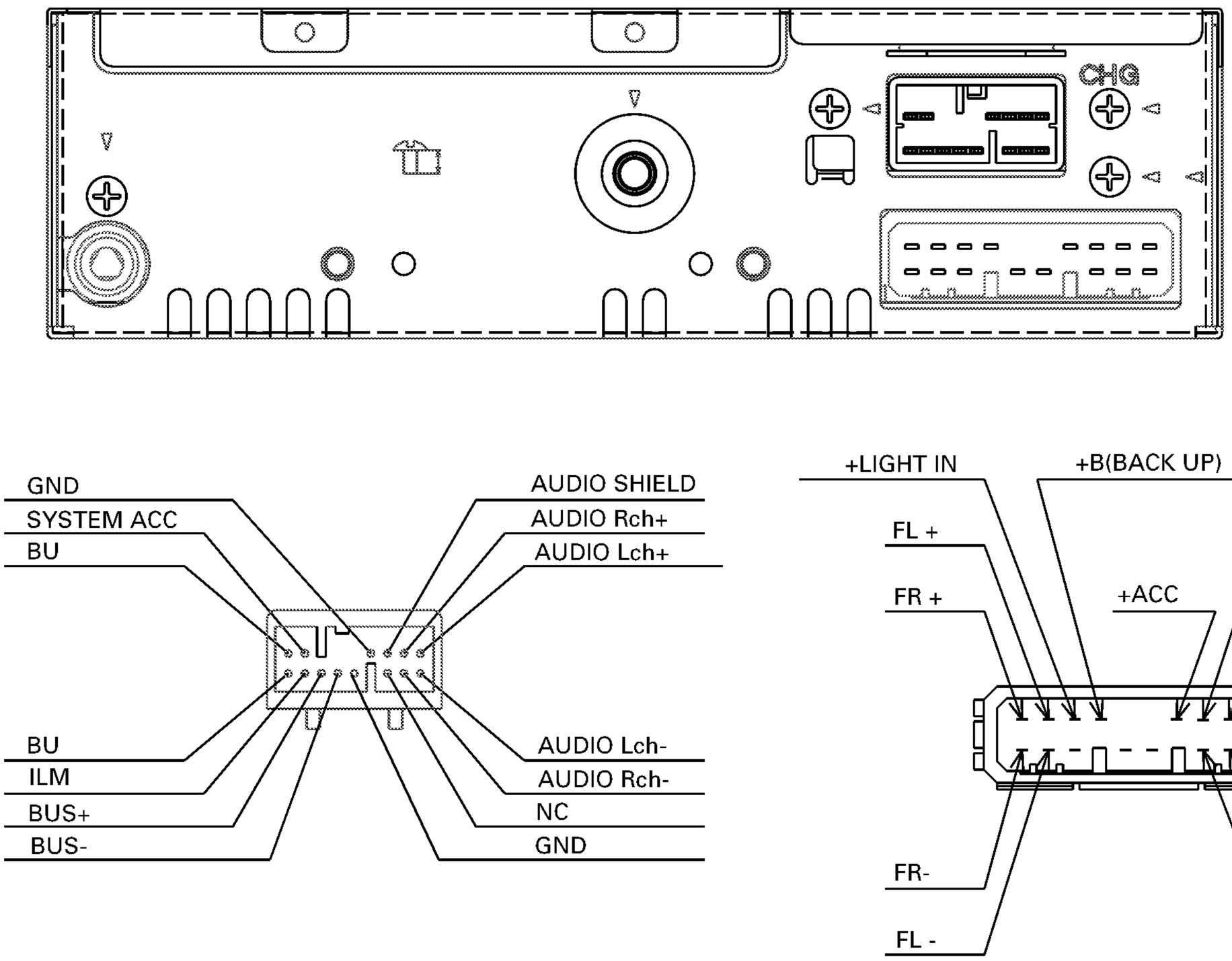


Fig. 25

PTY ALARM

ALARM is a special PTY code for emergency announcements, such as natural disasters. When the radio alarm code is received "ALARM" lights in the display and the volume changes. When the station stops broadcasting the alarm, the system returns to its previous source.

NEWS INTERRUPT FUNCTION.....[7]

Press button [7]. "NEWS" ^ indications go on.
When FM station (selected last) puts newscast on the air for another type of program, operation of CD or CD changer is interrupted and the radio is activated to receive the newscast. On the other hand, when broadcast program is changed from news to another kind program or when reception of broadcast discontinues for 10 seconds or more (for the reason of weak signal, etc.), this function automatically restores sound source to the original as it was output before activation of this function.
When tuned to FM, leaving this function ON automatically switches you to another station in the same network as soon as a newscast begins on that station.

Advice

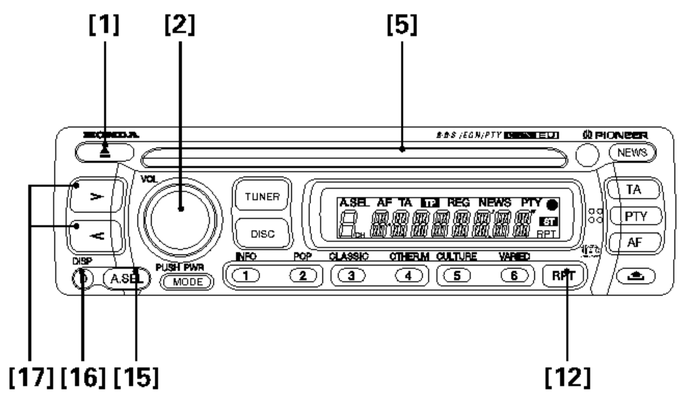
- *Volume level for receiving FM newscast is the same as it was set for TA.*
- *Besides NEWS INTERRUPT function, this set has another interrupt function, namely, TA function. (Interrupt function of this set automatically switches operation mode from playing CD/CD changer to reception of FM.) If the situation needs these interrupt functions, the function activated first has priority over the other. In this case, indication of the other interrupt function goes out while the other function is being activated.*

If you desire to activate the other interrupt function for that currently in activation, turn off the currently activated interrupt function. The other interrupt function is automatically activated to enable you to listen to FM broadcast on its channel.

TUNING STEPS

The tuning step is set to 50 kHz during search tuning on an FM band. However, this tuning step changes to 100 kHz when the AF or TA mode is activated.

USING THE CD PLAYER



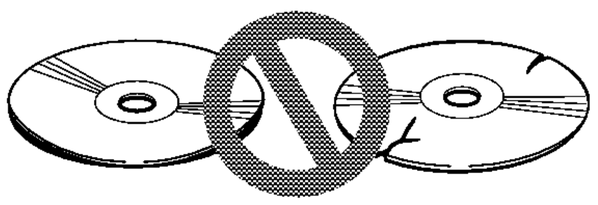
BEFORE USING THE CD PLAYER

Disc Selection and Care

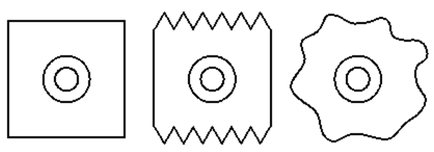
- Play only CDs bearing the Compact Disc Digital Audio mark.

COMPACT disc DIGITAL AUDIO

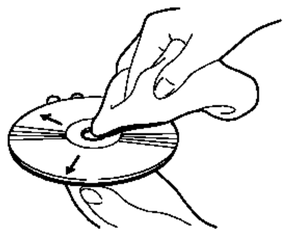
- Check all CDs before playing, and discard cracked, scratched or warped discs.



- Be sure to use round shape disc's only for this unit and never use any other special shape discs.
  Use of special shape disc's may cause damage to the mechanism.



- Wipe dirty or damp discs outward from the center with a soft cloth.



- A void touching the recorded (iridescent) surface when handling discs.
- Store discs in their cases when not in use.

Precaution:

- Keep discs out of direct sunlight and high temperatures.
- Do not affix labels or apply chemicals to discs.
- Condensation may collect inside the player when using the heater in cold weather, interfering with playback. Turn it off for an hour or so and wipe damp discs with a soft cloth.
- Road shocks may interrupt CD playback.

LISTENING TO A CD ..... [2] [1]

When a CD is inserted in the disc slot [5], CD play starts. Disc indicator ⑫ and track number ⑮ are displayed. Playback is stopped pressing button [2]. To remove the CD, press button [1].

TRACK SELECTION (TRACK NUMBER SEARCH) ..... [17]

Press the (<) or (>) side of button [17] for a moment (less than 0.5 seconds), and press the button repeatedly until you reach the track you want to play.

Advice

- *If you press the button for longer than 0.5 seconds, fast forward/rewind will operate, and it will not be possible to perform a track number search.*

FAST FORWARD AND REVERSE .....[17]

Press the (<) or (>) side of button [17] until you hear a beep (0.5 seconds or more).

Advice

- *Playback can be heard during fast-forwarding or rewinding.*
- *Fast-forwarding or rewinding is performed only as long as the button is pressed.*

AUTOMATIC MUSIC SELECTION ..... [15]

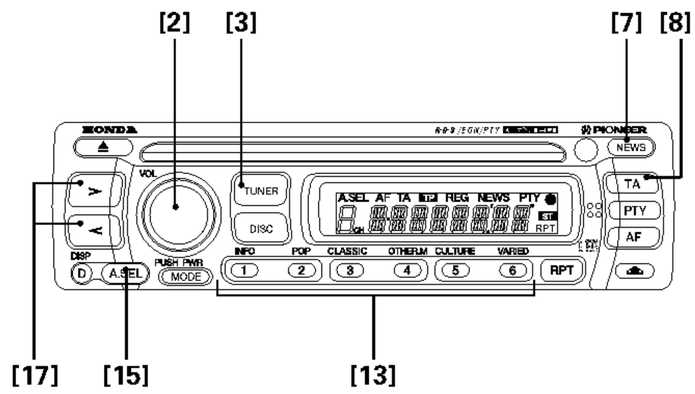
Press button [15], and "A.SEL"⑬ will light. To cancel this setting, press button [15] once again, and "A.SEL"⑬ will disappear.

Advice

- *The microcomputer in the CD player can select and play tracks from the CD randomly.*
- *The track to be played is selected randomly, and the same track may be played twice in succession.*

REPEATED PLAYING OF THE SAME TRACK (REPEAT PLAY) ..... [12]

Press button [12] while the track you want to repeat is playing, and "RPT" ⑯ will light. To cancel this setting, press button [12] again, and "RPT" ⑯ will disappear.



Adjusting Bass
Select the bass adjustment mode. Bass intensity is gradually increased by turning dial [2] to the right, and decreased by turning dial [2] to the left. (Display shows "BAS –6" ~ "BAS 6").

Adjusting Treble
Select the treble adjustment mode. Treble intensity is gradually increased by turning dial [2] to the right, and decreased by turning dial [2] to the left. (Display shows "TRE –6" ~ "TRE 6 ").

Adjusting Balance
Select the balance adjustment mode. The balance is gradually changed to left speaker sound only, by turning dial [2] to the left, and to right speaker sound only, by turning it to the right. (Display shows "BAL L9" ~ "BAL R9").

Adjusting the Fader
Select the fader adjustment mode. The balance is gradually changed to front speaker sound only, by turning dial [2] to the right, and to rear speaker sound only, by turning it to the left. (Display shows "FAD F9" ~ "FAD R9").

Advice
- *When a two-speaker system is used, you should set "FAD 0".*

OTHER FUNCTION

Illumination
The radio illumination is linked to the car light switch, and the button area lights up when the car lights are turned on.

Advice
- *Your ignition key must be turned to ACC or ON position.*

LISTENING TO THE RADIO ..... [3] [2]

When button [3] is pressed, the radio power is turned on and the Band ⑩ and Frequency ⑨ are displayed. To turn the radio off, press button [2].

CHANGING THE BAND ..... [3]

The band is selected by pressing button [3] repeatedly. Each time the button is pressed, the band changes in the following order.

U1 (FM1) → U2(FM2) → UT(FMT) → M/L(MW/LW)

AUTOMATIC TUNING ..... [17]

The radio automatically tunes in to a station with a strong signal above a certain level. Press (<) or (>) button [17].

MANUAL TUNING ... [8] [17]

This is useful for tuning in to a station with a very weak signal that cannot be picked up with automatic tuning.
1. Continue pressing button [8] for 2 or more seconds. (Until you hear a beep)
2. Select a station by pressing the < or > side of button [17].
   If you do not press a button for more than 10 seconds, you will hear a beep and automatically be returned to AUTOMATIC TUNING mode.

Advice
- *When returning to automatic tuning, continue pressing button [8] for 2 seconds or more once again. (Until you hear a beep)*

MEMORIZING STATIONS (PRESET MEMORY)

A selected station is memorized in one of buttons [13].

Memorizing a Station..... [13]
Choose one of buttons [13], and hold it down until you hear a beep (about 2 seconds). The preset number ⑪ will light, and the station will be memorized in the chosen button.

Advice
- *The radio cannot be heard while the button is being held down.*

Recalling a Station..... [13]
When the button [13] is pressed again after a station has been memorized, the radio will be tuned to the station stored in that button. The number of the pressed button lights in ⑪ on the display.

AUTO SELECT ..... [3] [15]

Broadcasts of high output stations can be memorized in button [13] of UT (FMT) band according to the following procedure.
1. Press button [3] to switch over band to U1, U2 or UT.
2. Press button [15] to start automatic memorization of high output stations. Through automatic memorization operation,"A.SEL" ① is displayed. (A-SEL flashes ⑨)

Advice
- *There is no audio output in automatic memorizing operation.*
- *When automatic memorization is started with U1/U2 band, the same is performed for UT band that is automatically switched on to follow U1 and U2 bands.*
- *Automatic memorization cannot be activated for MW and LW bands.*

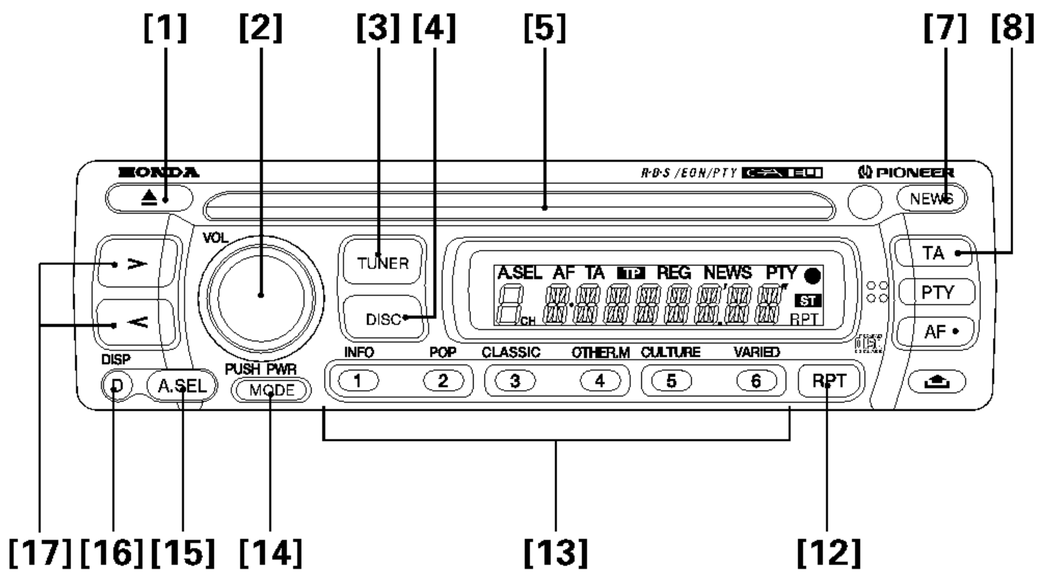
3. With completion of general automatic memorization, "A.SEL" ① goes out and the radio receives broadcast of the highest output station.

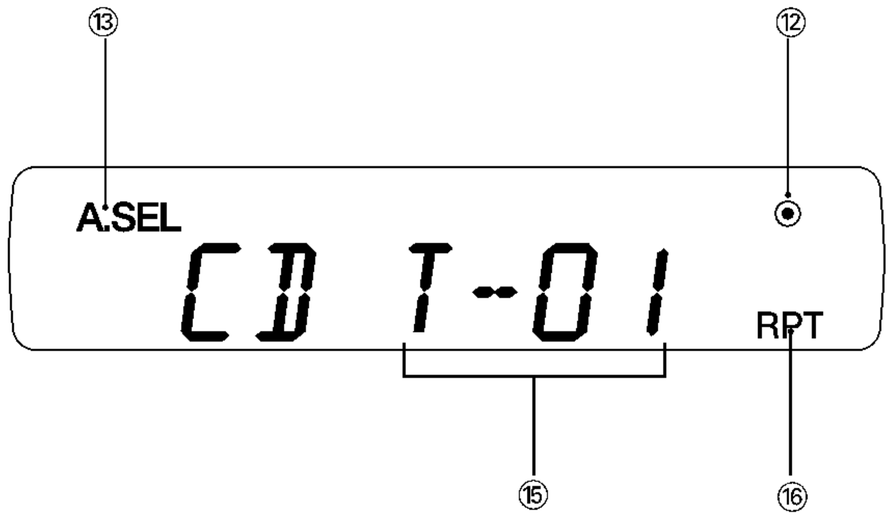
Advice
- *When the set fails in finding the especially highest output station out of memorized stations, "0" appears on the display.*
- *In the case memorized stations are five or less in number, the display indicates "0" when button [13] in which no station is memorized is pressed.*

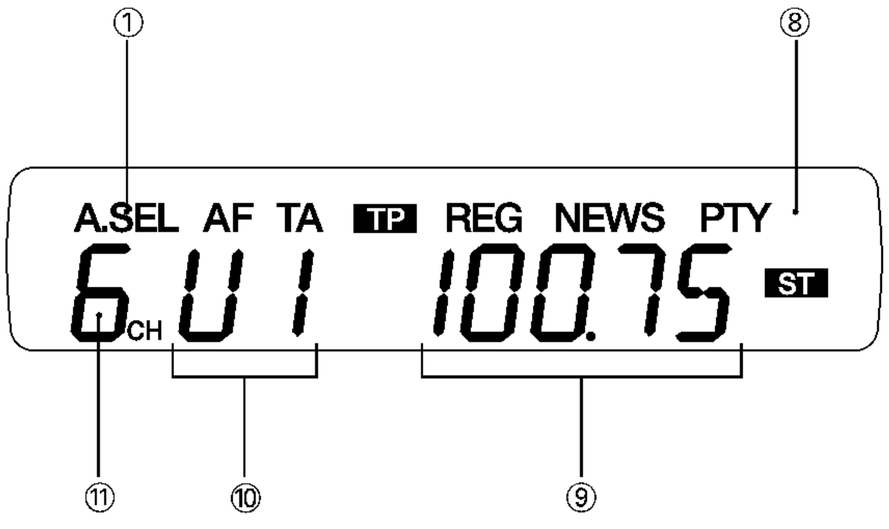
OTHER FUNCTIONS

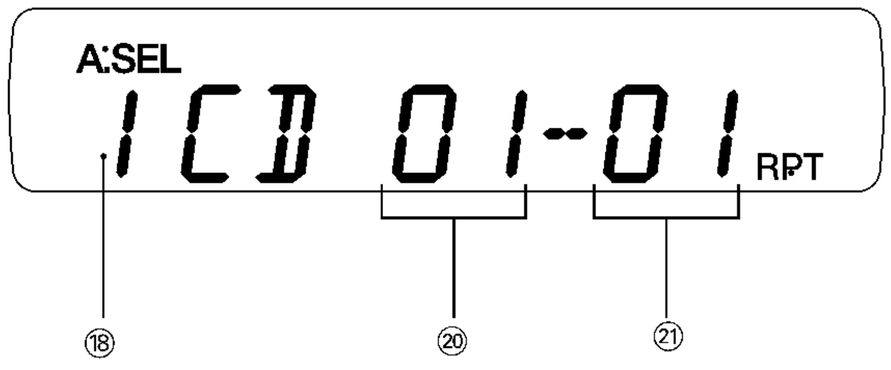
Stereo Indicator
When the radio is tuned to an FM stereo station, "ST" ⑧ will be displayed.

8. OPERATIONS AND SPECIFICATIONS

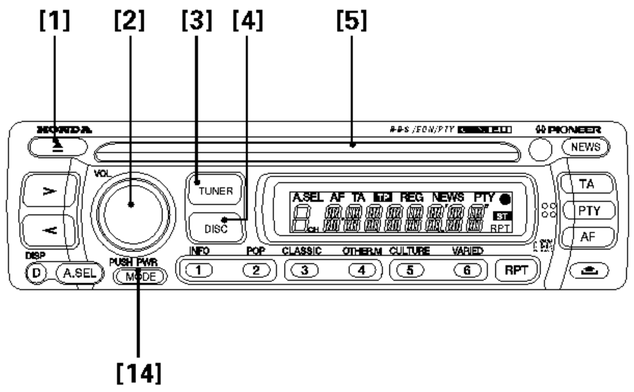








BASIC OPERATIONS



SWITCHING POWER ON

Radio ..... [3] [2]
When button [3] is pressed, the radio power is turned on.To turn off, press button [2]

CD PLAYER .... [2] [1] [4]
When a CD is inserted in the disc slot [5], it is loaded and starts playing automatically. It can be stopped by pressing button [2], and restarted by pressing button [4]. To remove the CD, press button [1].

Advice
- *When the proper Honda CD (MD) changer (sold separately) is used, pressing button [4] will alternate between CD and CD (MD) changer playback.*

CD (MD) CHANGER ... [4] [2]

- The proper Honda CD (MD) changer (sold separately) is required to play CDs (MDs).

Playing of a CD (MD) is started by pressing button [4], and stopped by pressing button [2].

Advice
- *When a CD is loaded, pressing button [4] will alternate between CD and CD (MD) changer playback.*

SWITCHING POWER ON .... [2]

If button [2] is pressed when the power is off, the power supply of the source before power was turned off is turned on.

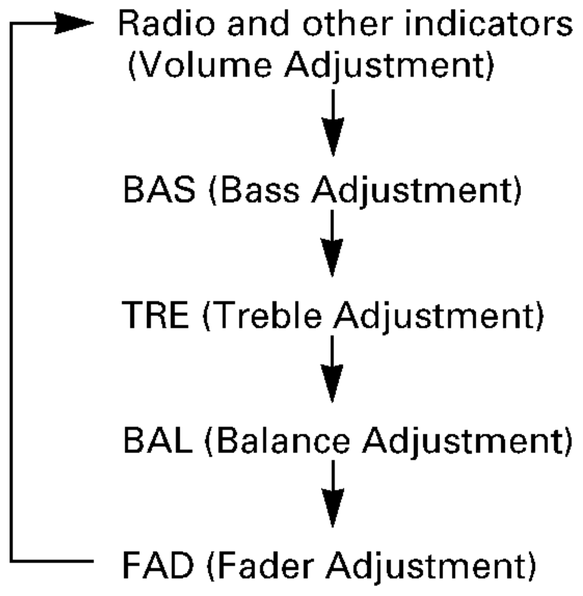
ADJUSTING VOLUME ..... [2]

The volume is increased by turning dial [2] to the right, and decreased by turning it to the left. (Display shows “VOL 00” ~ “VOL 30”).

Advice
- *When driving, a volume level should be selected that allows sounds outside the vehicle to be heard.*

ADJUSTING AUDIO ..... [14]

Press button [14] to switch to the mode in which you want to make the adjustment, and turn the dial [2] to make the adjustment. The adjustment mode changes each time the button [14] is pressed, as shown below.



Advice
- *When bass, treble, balance and fader adjustments are made, a beep will be heard at the center position. The adjustment mode is canceled approximately 5 seconds after an adjustment is made.*

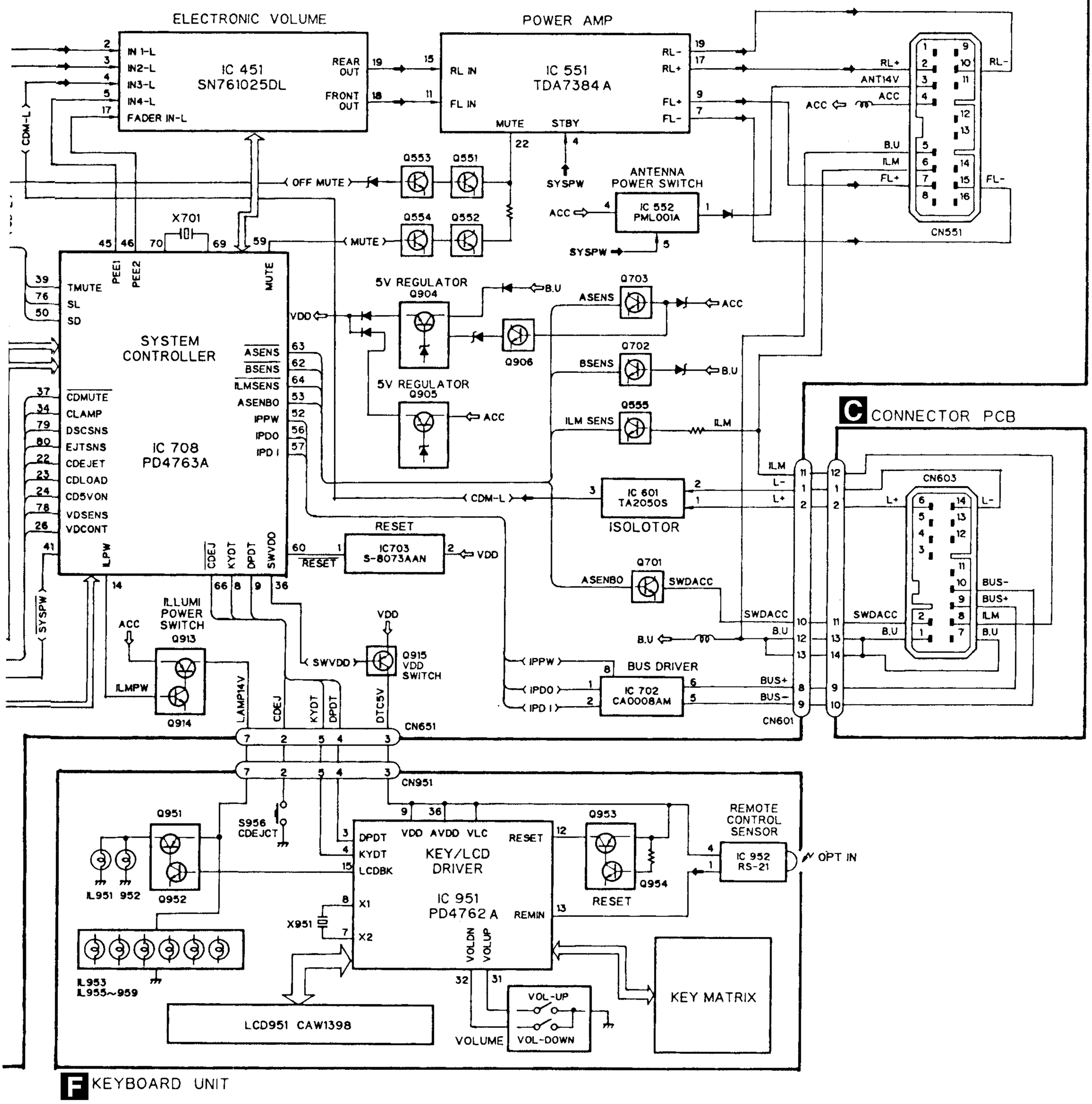
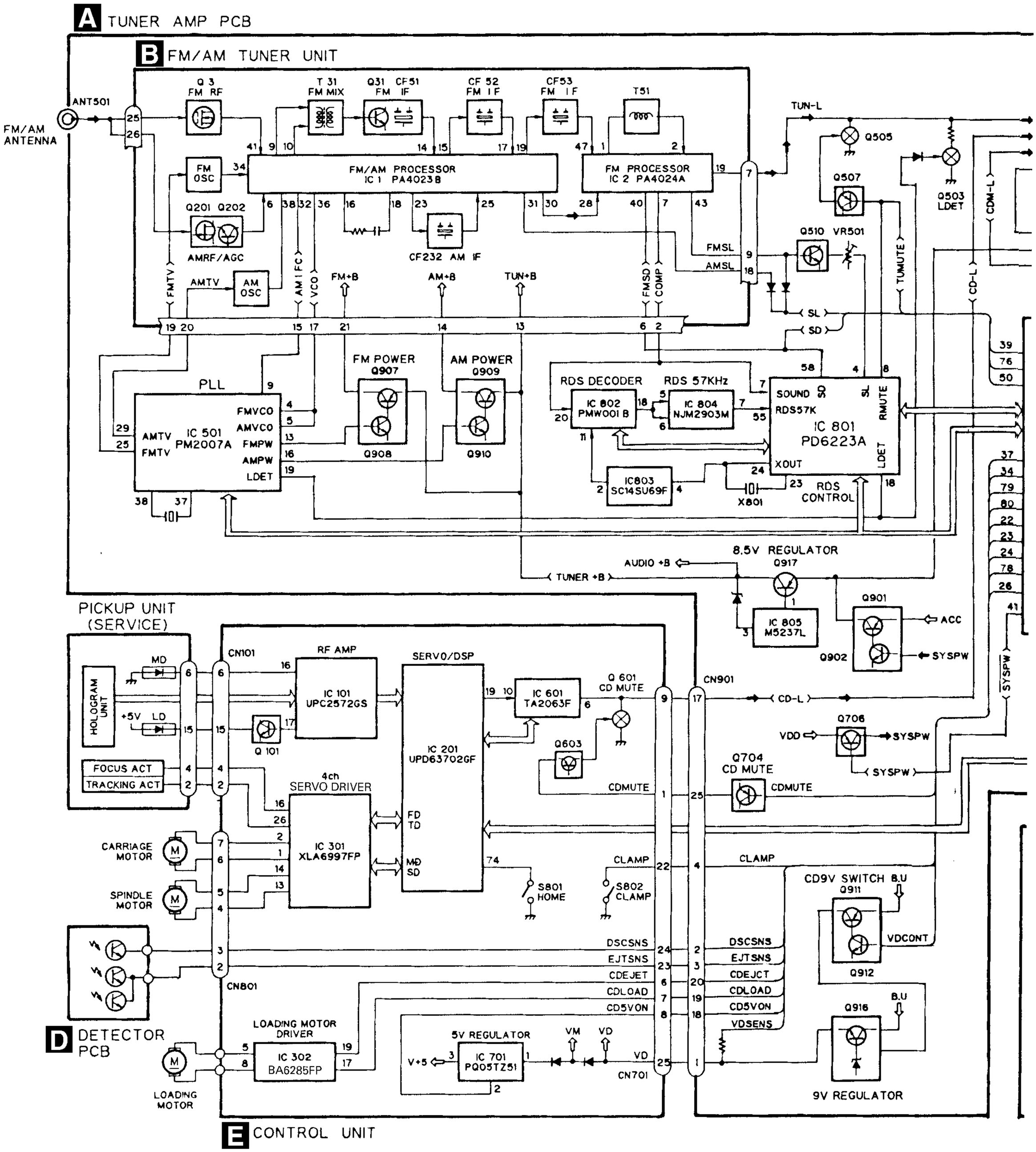

ELECTRONIC VOLUME
IC 451
SN761025DL
IN 1-L
IN2-L
IN3-L
IN4-L
FADER IN-L
REAR OUT
FRONT OUT
POWER AMP
IC 551
TDA7384 A
RL IN
FL IN
MUTE
STBY
RL-
RL+
FL+
FL-
CDM-L
OFF MUTE
MUTE
Q553
Q551
Q554
Q552
X701
SYSPW
ANTENNA POWER SWITCH
IC 552
PML001A
ACC
ANT14V
B.U
ILM
CN551
SYSTEM CONTROLLER
IC 708
PD4763A
TMUTE
SL
SD
PEE1
PEE2
MUTE
ASENS
BSENS
ILMSENS
ASENBO
IPPW
IPDO
IPD I
CDMUTE
CLAMP
DSCSNS
EJTSNS
CDEJET
CDLOAD
CD5VON
VDSENS
VDCONT
LPW
CDEJ
KYDT
DPDT
SWVDD
5V REGULATOR
Q904
Q906
Q905
VDD
Q703
Q702
Q555
ILM SENS
CONNECTOR PCB
CN603
CN601
IC 601
TA2050S
ISOLOTOR
RESET
IC703
S-8073AAN
Q701
SWDACC
BUS DRIVER
IC 702
CA0008AM
BUS+
BUS-
ILLUMI POWER SWITCH
Q913
Q914
ILMPW
LAMP14V
Q915
VDD SWITCH
DTC5V
CN651
CN951
S956
CDEJCT
Q951
Q952
IL951 952
KEY/LCD DRIVER
IC 951
PD4762 A
LCDBK
X1
X2
X951
REMIN
VOLDN
VOLUP
Q953
Q954
REMOTE CONTROL SENSOR
IC 952
RS-21
OPT IN
IL953
IL955~959
LCD951 CAW1398
VOLUME
VOL-UP
VOL-DOWN
KEY MATRIX
C CONNECTOR PCB
F KEYBOARD UNIT

Fig. 26

7.3 BLOCK DIAGRAM

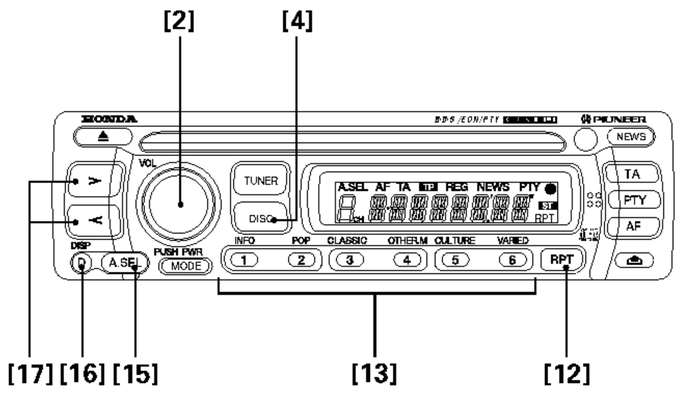


ELAPSED TIME OF PLAY INDICATION.....[16]

Each time you press button [16], the display switches between track number and elapsed time indications.

PLAYING CD CHANGER

- The proper Honda CD changer (sold separately) is required to play CDs.
- Since the CD changer can be operated in the same way though there are some differences in indication between them, the following explains operation of the CD changer by way of example.



LISTENING TO A CD ..... [4] [2]

When button [4] is pressed, CD playback starts and the disc number ⑳, track number ㉑ appear on the display. Playback is stopped by pressing button [2].

Advice

- *When a CD is inserted in the disc slot, pressing button [4] will alternate between CD and CD changer.*
- *If there is no magazine in the CD changer, "CD EJECT" will appear on the display.*
- *When two or more CD changers are connected, press button [4] to select a desired one. The number of selected changer appears in ⑱.*

SELECTING A DISC ..... [13]

Press the button in [13] with the same number as the number of the disc you want to play.

Advice

- *There is a delay of several seconds before the music starts after pressing the button, due to the disc changeover operation.*
- *When CD changer of 12-discs loading type is connected, switch over between two disc groups as mentioned below. Press button [13] momentarily (within 0.5 second) to select the 1st to 6th discs for playing.*
  Press button [13] for longer than 0.5 second to select the 7th to 12th discs for playing.

SPECIFICATIONS

GENERAL

Power source .....13.2 V DC (10.8 — 15.2 V allowable)
Grounding system.....Negative type
Max. current consumption .....15 A
Dimensions (chassis).....178 (W) × 50 (H) × 160 (D) mm
(nose) .....190 (W) × 60 (H) × 11.8 (D) mm
Weight .....1.5 kg

AMPLIFIER

Maximum power output.....35 W × 4
Continuous power output .22 W × 4 (DIN453241, +B = 14.4 V)
Load impedance.....4Ω (4 — 8Ω allowable)
Tone controls (bass) .....±12 dB (100 Hz)
(treble).....±12 dB (10 kHz)

CD PLAYER

System .....Compact disc audio system
Usable discs.....Compact disc
Signal format .....Sampling frequency: 44.1 kHz
Number of quantization bits: 16; linear
Frequency characteristics.....5 — 20,000 Hz (±1 dB)
Signal-to-noise ratio.....94 dB (1 kHz) (IEC-A network)
Dynamic range .....90 dB (1 kHz)
Number of channels .....2 (stereo)

FM TUNER

Frequency range .....87.5 — 108 MHz
Usable sensitivity.....11 dBf (mono. S/N: 30 dB)
50 dB quieting sensitivity.....16 dBf (mono)
S/N ratio.....70 dB (IEC-A network)
Distortion.....0.3% (at 65 dBf, 1 kHz, stereo)
Stereo separation.....40 dB (at 65 dBf, 1 kHz)

MW TUNER

Frequency range.....531 — 1,602 kHz
Usable sensitivity .....25dBµV (S/N: 20dB)
Selectivity .....50 dB (±9 kHz)

LW TUNER

Frequency range.....153 — 281 kHz
Usable sensitivity .....30 dBµV (S/N: 20 dB)
Selectivity .....50 dB (±9 kHz)

Note:

Specifications and the design are subject to possible modification without notice due to improvements.